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ABSTRACT

The document presents the report of a conference to enable population experts in developing nations to exchange ideas regarding objectives, needs, problems, and organization of population education programs. The 25 participants included population experts from international agencies, educators, and government officials from Afghanistan, Bangladesh, Fiji, India, Indonesia, Malaysia, Nepal, Papua New Guinea, Philippines, Korea, Sri Lanka, and Thailand. The document is presented in three major sections. Section I, General Report, presents an overview of innovative approaches to population education, alternative approaches which have been successful in specific instances, program development and implementation, teacher training, curriculum and materials development, and coordination of population programs with other educational programs. Data are presented in narrative, tabular, and outline form. Section II, Country Reports, offers specific information about the population characteristics and population education in each of the participant countries. Information is presented on population trends, socioeconomic influences, family planning, in-school population education programs, community interest in and support of population education, objectives, administrative organization and coordination, and non-formal population education efforts by community groups, special interest groups, governmental agencies, and the media. Section III presents the conference agenda, a directory of participants, excerpts from group discussion sessions, and the text of major speeches. (DB)

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Population Education Programme Service

POPULATION EDUCATION: innovative structures and approaches

Report of a Regional Workshop
New Delhi, 23-29 October 1979

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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INTRODUCTION

Organizer

The Regional Workshop on Innovative Structures and Approaches to Population Education was organized by the Unesco Regional Office for Education in Asia and Oceania with the Government of India, The National Council of Educational Research and Training (NCERT) in particular, as generous host. The Workshop was held at Qutab Hotel, New Delhi, from 23 to 29 October 1979.

Objective

The objectives of the Workshop were as follows:

1. to enable countries with population education programmes to share their experiences; and

2. to enable countries with emerging population education to formulate alternative and innovative structures and approaches for more effective implementation of various aspects of population education programmes.

Participation

Twenty-five participants from the Democratic Republic of Afghanistan, Bangladesh, Fiji, India, Indonesia, Malaysia, Nepal, Papua New Guinea, Philippines, Republic of Korea, Sri Lanka and Thailand participated in the Workshop (see Annex IV - List of Participants).

Background

Since the early 1970s, about eight countries have initiated national population education programmes. Eight more countries in Asia and Oceania are in the process of developing national projects in population education. This Workshop was planned primarily to provide opportunity for the exchange of inter-country experiences and to formulate alternative structures and approaches for more effective implementation of population education programmes at the national level.

Preparation of the Workshop

The countries invited to the Workshop were requested to prepare a country report focused on innovative structures and approaches to population education. The agenda, annotated agenda and proposed schedule of work were prepared and made available to participants long before the Workshop (see Annexes I and II).

Inauguration

The Workshop was inaugurated by Professor J.D. Sethi, Member Planning Commission, India. Dr. S.K. Mitra, Director of NCERT welcomed the participants and guests. Dr. Leonardo de la Cruz, Regional Adviser on Population Education, made the opening remarks and welcomed the participants on behalf of Unesco. Dr. R.C. Sharma, Specialist in Curriculum Development in Population Education, introduced the Workshop and the participants, while Dr. T.N. Dhar, Joint Director, NCERT, delivered the vote of thanks (see Annex VI - Remarks and Speeches).

Election of officers

To facilitate the conduct and recording of the deliberations during the sessions, election of officers was undertaken after the inauguration.

Chairman	:	Professor B.S. Parakh (India)
Vice Chairman	:	Dr. Kuk Bom Shin (Republic of Korea)
Rapporteur	:	Miss Fatimah bt. Abu Bakar (Malaysia) Mr. Edgar Callanta (Philippines)

Closing programme

A closing programme was held on 29 October 1979 with Mr. Rabi Ray, Minister of Health and Family Welfare, India as the guest speaker. Prior to the main speech, the Rapporteur of the Workshop, Miss Fatimah bt. Abu Bakar, presented a brief report on the outcome of the Workshop. Brief remarks were also made by Dr. S.K. Mitra, Director of NCERT, Dr. Kuk Bom Shin on behalf of the participants and Dr. Leonardo de la Cruz on behalf of Unesco. Professor B.S. Parakh and Dr. R.C. Sharma delivered the vote of thanks on behalf of NCERT and Unesco respectively.

PART ONE

GENERAL REPORT

REVIEW OF EXPERIENCES IN INNOVATIVE STRUCTURES AND APPROACHES TO POPULATION EDUCATION

The twelve countries represented in the Workshop shared their experiences in various aspects of population education - both in-school and out-of-school. Innovative experiences in Asia and Oceania were singled out as country reports were presented during the first two days of the Workshop. A few of the innovative experiences in the region in population education are briefly described below.

IN-SCHOOL POPULATION EDUCATION

Programme, planning and development

In most cases, population education is viewed as part of national development plans. Population education is in many countries one way of implementing the country's population policy. Where this is so, systematic planning has been evident.

Needs assessment. UNFPA has been conducting needs assessments in population programming. One area for such needs assessment is in population education. The needs identified are made the basis for the formulation of national projects in population education.

Unesco Mobile Team. The Unesco Mobile Team on Population Education has been called upon for advice in the planning and implementation of population education programmes.

Awareness and orientation

In many countries, population education is relatively new, and to many people it is often equated with the narrow concept of family planning that is designed to prevent birth and control population growth. There is the need for awareness and orientation programmes so that the key personnel might realize that population education is not family planning; but it is an educational programme designed to inform young people and adults about population dynamics, the causes and consequences of population growth, and the interrelationship of population change to development and to components of quality of life such as housing, clothing, food and nutrition, education, health, social services, environment and recreation.

A number of innovative awareness and orientation strategies have been tried out in the region. A few of these are cited below.

Study tour. Ranking officials in the Ministry of Education, Teacher Training Institutions and Universities have been sent on a study tour to countries with population education programmes in the region. Invariably, upon their return these officials become advocates of population education programmes.

Seminars. Seminars on population education on the national, state and provincial levels have been widely utilized for awareness and orientation programmes. In such seminars, slides and tape presentations have been utilized. One such slide and tape set which has been used in some countries is the *Demography in Population Education* developed by the Unesco Regional Office for Education in Asia and Oceania.

Unesco Mobile Team. A number of countries in the region have sought the help of the Unesco Regional Mobile Team on Population Education in orienting high-level educators and policy-makers on the nature, goal and role of population education.

Curriculum and materials development

Various strategies for curriculum development have been tried out in the region. A few are cited below:

Infusion. This is the substitution of population examples for already existing material to illustrate a point or a new approach.

Integration. This involves the incorporation of population education content into different subject syllabi and subsequently in the textbooks and other curricular materials.

Permeation. This is quite similar to the infusion and integration approaches, whereby population content permeates many topics of the existing curricula. The idea is to enrich relevant school subjects with population data and content.

Unit. The approach involves adding separate units on population in selected subjects.

Among the subjects to which infusion, integration and permeation have been done are in life sciences (general science, biology), social studies (geography, history and economics, civics), health education, home economics, mathematics and languages.

Separate subject. In about three countries in the region population education is offered as a separate elective course in the secondary level.

Materials. The materials thus far developed in population education in the region include books, teaching units, models, supplementary readers (pamphlets), slides and tapes, and films. These materials are mainly in the national language of the countries of the region.

Teaching strategy. Many innovative teaching strategies have been tried out. Among these are a variety of inquiry-oriented teaching techniques such as problem-solving; value clarification strategies; role playing, and simulation. In all these teaching techniques, there are serious attempts to shift from merely absorbing population facts and data to one of problem-solving and value-fair teaching.

Training of teachers

A number of training strategies have likewise been resorted to in the region. Some of these are briefly described below.

SLEM. In view of the difficulty of doing face-to-face training of all teachers charged with the responsibility of teaching population education, self-learning modules in population education are being used. The use of self-learning modules varies quite a lot, from a supplement to face-to-face training to self-contained training programme for teachers.

Relay face-to-face training. In this scheme trainers are trained by the staff of the population education programme, who in turn train middle-level trainers who eventually train the bulk of the teaching force.

Face-to-face training. In a few countries, where there is a corps of training specialists, face-to-face training is given to almost all teachers.

Seminars. In some countries where high-level people are averse to the concept of being trained, seminars are used as training strategies.

Research and evaluation

Three to four countries in the region have done researches in population education. These researches are: i) content analysis of existing textbook to serve as a baseline for what else needs to be added to the curriculum; ii) survey of parents and students attitudes to controversial issues in population education; iii) concept of family size; iv) methodological studies such as the effectiveness of the discovery and/or inquiry-oriented approaches; and v) the relative effectiveness of the monolithic (separate subject) versus the integration approach.

Evaluation of the programmes and various components of the population education programmes are also being done in various countries in the region. The need to go beyond merely evaluating cognitive learning to one where affective outcomes are evaluated is emerging in the region.

Administrative organization

Two distinct operational organization schemes have emerged in the region. The first one is one where the population education programme is an independent unit of the Ministry of Education; and the second is where the population education unit is a part of the Curriculum Development Centres. Likewise, the staffing pattern varies from one where there is a full complement of programme officers in the central office, as well as on the provincial level, to one where there is only a skeletal force at the central level, and where the bulk of the work is subcontracted to appropriate institutions.

In some countries, population education units started as *adhoc* bodies, whose personnel are largely paid from international contributions; but later the national governments have assumed full responsibility for the project personnel and the programmes.

OUT-OF-SCHOOL POPULATION EDUCATION

Population education in the out-of-school sector has come into the picture in many countries. The Workshop recognized that out-of-school population education has some overlaps with the information, education and communication component of family planning programmes. The Workshop noted the need to see to it that this is a reinforcing mechanism rather than an unnecessary duplication effort.

The experience in the region is that while in the in-school practically only the Ministry of Education is involved, in the out-of-school population education, several ministries and organizations are involved. One thing of course, surfaced in the discussions, that population education is not taught in isolation, but is integrated in the development programmes of various ministries/agencies/organizations.

Programme development

As already stated earlier, population education is being planned to revitalize development programmes. Population education is being integrated in various development programmes like human settlement, rural development, labour training and education, agricultural extension, maternal/child health, food and nutrition, literacy programmes and other social development efforts.

Awareness and orientation

Awareness and orientation to population have likewise taken many forms. A few are briefly mentioned below:

Radio and television. In some countries, radio and television have been used as educational media ranging from the use of radio - spot announcements, musical programmes, playlets to full-length feature films.

National theatre company. A mobile theatre has been used in a few countries.

Local singing groups. Local singing groups have been used in a few countries.

Home visits. Home visits to families have been resorted to in some countries, especially as part of maternal/child health programmes. In one country, mothers-in-law are the targets, in view of the reluctance of daughters-in-law to receive motivators in their homes without the consent of mothers-in-law.

Community involvement. In many countries, the people in the communities are being involved in a self-analysis of the population problems of their communities, leading to a self-reliant approach to the solution of community problem such as those brought about by unplanned population growth. There has been a shift from the old approach where agency representatives come to the region to tell the people what their problems are and then prescribe appropriate solutions. Now the communities identify their own problems, think out solutions to such problems and utilize as much as possible their own resources in tackling the problems.

Curriculum and materials development

The curriculum and materials developed for the out-of-school population have likewise taken various forms. However, there is a limited experience in the systematic integration of population education content in the various development programmes. The Unesco Regional Training Workshop on Instructional Materials Development in Out-of-School Population Education held at the Philippine Rural Reconstruction Movement, the Philippines has provided alternative models on how this could be done.

In some countries, offices for non-formal education have been created which serve as a source for instructional materials.

Training of personnel

The training of personnel in out-of-school population education is done largely as a component of the training of personnel for the different development programmes. These trainings vary quite a lot ranging from seminars/workshops to on-the-job apprenticeship in actual community development programmes.

Co-ordination

In view of the fact that different agencies/departments/ministries have taken it upon themselves to integrate population education in their development programmes, the problem of co-ordination is real in many countries. In a few countries, the Unesco Mobile Team on Population Education has organized Planning and Development Meetings to help pave the way towards co-ordinating their efforts in population education. In some countries, the national population co-ordinating body has taken initiative to co-ordinate the population education efforts of the different agencies/ministries/organizations.

In a few countries, an office for non-formal education co-ordinates all out-of-school educational programmes, including that of population education.

ALTERNATIVE INNOVATIVE STRUCTURES AND APPROACHES TO POPULATION EDUCATION

Introduction

In the light of the experiences in population education shared during the first two days of the Workshop, the participants agreed to probe more in-depth in the innovative aspects of various components of population education programme.

The Workshop divided itself into four groups. The grouping was made on the basis of preferences for programme expressed by the members. Four main programme components of population education were identified, namely the following:

1. Programme development and implementation, including research and evaluation;

2. Awareness and orientation of key persons and training of teachers and other personnel;

3. Curriculum and materials development; and

4. Co-ordination with different agencies/departments and administrative organization.

However, delegates coming from the same country were encouraged to spread to different groups. The memberships and office bearers of each group are found in Annex V.

The existing structures and/or approaches for the different programme components were analysed. The advantages and disadvantages, as well as the problems, were carefully analysed, in the interest of countries which may like to adopt or make adaptations of each of the innovations.

Guidelines and alternative models for each programme component were suggested. It was emphasized that these are suggestions and not prescriptions. The Workshop is aware that education, for this matter population education is not an exportable commodity.

In view of time constraints, many of the structures and approaches recommended were not written up in sufficient detail; neither has the Workshop included in the Report all the innovations that have already been tried out in many countries in the region.

The Workshop takes the position that the Report is not a terminal activity but rather a blue print for future innovations in population education.

Programme development and implementation of population education programmes including evaluation

A number of variables which play a crucial role in the planning of the population education programme are as follows:

1. The linkage of population education with population programmes is essential since it is to be viewed as part of national developmental endeavour; not as an educational innovation *per se*.

2. The issuance of a decree on population education policies from the highest authority seems to be a key factor for the success of the programme, as judged by the experiences of countries where such political commitment exists.

3. It is also important to keep in view the status of population education as an integral part of the educational system supportive of the national developmental efforts.

4. Population education programmes must include both formal and non-formal approaches since the two complement each other for the achievement of overall national developmental goals.

5. Systematic phasing of all stages of the programme is essential for success of the programme.

6. The establishment of an infrastructure at the national, provincial/state and grass-roots levels which would be responsible for the programme should be identified at the planning stage.

7. Co-ordination and supervision must be kept in mind for all aspects of the programme.

8. Research and evaluation is a key aspect of the planning process for eventual success of the programme.

Examining each of the variables identified above, the relevant innovative structures and approaches are presented in the form of matrix shown in the next page.

MATRIX ON VARIABLES IN PLANNING POPULATION EDUCATION PROGRAMMES

Variable / Innovation	Structure	Approach
1. Linkage of population education with population programmes and national development plans	Prime Minister's or President's Secretariat Population Commission/State Family Planning Board/Nodal Ministry such as Health and Family Welfare/Planning Commission	Involvement of key or top level officials in international meetings/seminars/ study tours. National Seminar on Population Education familiarising key personnel closely connected with population education. Seminar to identify population education programmes relevant to national development programmes.
2. Issuance of decrees or policy statements on population education programme	Ministries/Departments/ Special Agencies dealing with population education	Creating favourable climate through articles, talks, mass media, etc. Lobbying with politicians, passing of resolutions through various voluntary associations, organizing international meetings on specific issues related to population education.

Variable \ Innovation	Structure	Approach
3. Population education as an integral part of educational system	Ministry of Education/other Ministries and voluntary organizations engaged in the development of population education. Syllabus Committees/Textbooks Boards/Boards of Examinations, etc.	Holding interdepartmental or interministerial meetings/ Advisory Board or Consultative Committee meetings to plan, co-ordinate, implement policy, programmes, etc.
4. Population education programmes include formal and non-formal sectors	Inter-Ministerial/Inter-departmental/Private or Voluntary Agency Committees	Within the Ministry of Education Population Education Unit should view the whole programme (process) in both sectors essentially as complementary to one another. Regular meetings should be conducted to ensure that the targets are laid down on time. Meetings at the national level to formulate an acceptable uniformity in the programming of formal and non-formal population education.
5. Systematic phasing of all the stages of the programme	Existing body - National Planning Body/Planning Commission and experts - In-built part of the perspective plan document (as required for purposes of funding or making financial allocations)	Monitoring and periodic evaluation/mid-term evaluation of programme. Working groups from Population Education Unit to specify phasing of the programmes with a specific frame and budget.

Variable \ Innovation	Structure	Approach
6. Establishment of infra-structure at three levels - national, middle, grass-roots	Population Education Unit/ Projects/Cells in the Ministry of Education at three levels: a) National; b) State; c) District	Minimum staffing of Population Education Unit with professionals at the national level; project director, planning, training, curriculum and instructional materials development, production and documentation and research for both formal and non-formal sectors. Professionals from existing infrastructure from Ministry of Education should be designated to carry out similar functions at the middle and grass-root levels.
7. Co-ordination and supervision	Ministry of Education/ Project	Regular supervisions specially at early stage of implementation. Suitable instruments provided by the project for assessment of learning/teaching process should be utilized by the supervisors.
8. Evaluation and research	Research Institutes and Unesco Educational/Related Social Research Institutes/ Bodies at various levels - State/International/Unesco Regional Office	Sub-contracting research and evaluation to competent Institutes. Development of test-pool/ question banks for the project. Teacher-made tests at the grass-roots level.

Variable / Innovation	Structure	Approach
		Testing in the affective domain. - Development of formative evaluation by the project and teachers: test pool from the national level and teacher-made test at the grass-roots level. - Development of various evaluation instruments for summative evaluation as to how population education contribute to the achievement of population and development goal. - Evaluation of materials and strategies and modalities of teacher training. - Assessment of pupil and teacher's response to population education. - Basic research in: i) the learning processes and concept formation; ii) socio-cultural research; and iii) knowledge base research.

Awareness and orientation of key persons and training of teachers and other personnel

In analysing the topic it was felt that education and training programme have to be aimed at entirely different groups of people, ranging from marginally involved groups such as administrators at the policy-making level, middle-level executives and technical personnel to directly involved groups such as class-room teachers, teacher educators, population programme facilitators and extension workers.

Key persons could be categorized as administrators at the policy-making level, executives responsible for implementation of support programmes, university personnel, heads of teacher colleges, heads of professional and voluntary bodies. These are persons who by virtue of the position they hold, could play an important role for the success of any population education programme. The directly involved persons could be categorized as class-room teachers, teacher educators, curriculum developers and programme workers in non-formal and extension programmes.

In the latter group, one could identify key persons whose role is central to the designing and implementation of the programme. The design of any population awareness, orientation and training programme will therefore depend on the target group and the role that group will play in the development strategies and the methodologies will also depend on the target group.

Awareness and orientation of key personnel

a) Policy makers and administrators

Strategies. The awareness and orientation of these key personnel could take the form of short-term seminars where the issues pertaining to population are broadly discussed. Where high-level persons are involved, it was felt that persons having a high prestige should be asked to lead the seminars. The prestige of the seminar itself could be increased and thereby greater participation obtained if the seminar is held under the auspices of the organization high in the hierarchical order. Where the seminar is held under joint auspices with Unesco as a sponsor, the partner-national organization should be held in esteem by the participants. The duration of the seminar should depend on the awareness and orientation needs as well as the ability of the participants to spend time on seminars.

In order to get greater support and involvement of the participants it was felt that suitable and competent lead personnel should be invited to the seminar and structure the seminar so that greater interaction with such persons is possible.

Content. It was felt that the content of awareness and orientation programme should include matters pertaining to the development, population and education policies of the nation, the role of the key personnel and population situation both global and national. The interrelation of

issues such as resource depletion, pollution, migration, urbanization, health and nutrition should be stressed in order that a correct perspective could be given. The national population programme, and its objectives should also be included among the topics. Special efforts have to be made and if necessary research assistance should be obtained to find out particular misconceptions and perception blocks which prevent educated intelligent and well informed persons from perceiving the problems posed by population growth. Certain key words, phrases, ideas or illustrations might determine the efficacy or otherwise of the awareness education programme. Such findings could then be utilized for the better development of the orientation programme.

Methodology and materials. It will be possible to save seminar time if suitable orientation materials are developed, advance literature and materials could better prepare the participants for the seminar. Other audio-visual materials should make it possible to put across the concepts efficiently. Care should be taken in the use of these materials so as not to insult the intelligence of the participants.

It was felt that continued support of key persons could be ensured if follow-up activities such as newsletters, personal visits, interviews and periodic up-dating meetings are organized on a regular basis. Those follow-up activities should also enable the organizers to study the attitudinal changes of the key personnel.

International organization funding. It was felt that international funding, even partial, acts as a catalyst in the initiation of awareness and orientation seminars. Such international organizations sponsorship allows organizers to get greater ministerial and departmental support. Also, at inaugural proceedings which are inevitably involved, when such sponsorship is available, key persons of the highest levels could be invited. Such fundings could be better utilized for seminar type orientation, than sponsoring foreign visits in view of the large coverage possible, through such seminars. Sponsoring of foreign visits of key personnel of the marginal type may not be productive, except in special cases, as the sponsoring foreign visits and training of actually involved key programme personnel.

b) Programme personnel

Curriculum developers, evaluation specialists, research workers, organizers and designers of formal and non-formal programmes, once identified as key persons, need special in-depth training. These training programmes should be both wide in scope and rigorous in treatment of the topics and issues. It is better if all aspects of population related topics including those which are not required to fulfil their immediate professional roles are included in these training programmes. These are the personnel most benefitted by foreign training and exposure to programmes of other countries, because of their abiding interest in and commitment to population programmes.

Training

It is necessary to identify the different categories of teachers such as university-level teachers, teacher educators, secondary and primary school teachers and non-formal programme facilitators.

The university-level teachers and teacher educators have to be recognized as a special category needing comprehensive and rigorous training. They should be dealt along with key programme personnel as far as training needs are concerned.

a) Training of teachers

Strategy. Regarding school-level teachers, two types of training are possible:

(1) Pre-service or institutionalized training

(2) In-service or programme oriented training.

Pre-service training needs long preparation and training programmes once instituted in teacher training colleges, remain unchanged for several years. This is a disadvantage where new and evolving subjects such as population education are concerned. However, a few countries are offering population education as an elective or required course in teacher training institutions and at the masters level. Moreover, it will take a very long time to train the large number of teachers required for the introduction of population education to schools on a national scale, through pre-service training. Therefore, in view of the urgency of the introduction of the population related elements into the school curriculum, and in view of the need for flexibility, in-service training is the favoured strategy.

Because large numbers of teachers have to be trained in a short time, the innovative procedures already adopted by some of the Member States could be used. Bangladesh is giving in-service training to two teachers per school expecting them to look after the orientation of other teachers. Sri Lanka makes use of a network of teacher advisers or master teachers to induct and train other teachers through in-service seminars. It is possible for the centre to real all the teachers teaching a subject such as science, through this resource teacher network. The resource teachers could be given comprehensive training as well as frequent re-orientations, centrally. Because of the small number involved the provision of extra reference materials to those teachers is not difficult.

The other modalities which have been used by different countries in providing in-service training of different categories of teachers include mobile training teams, peer training, self-learning modules distance learning, relay face-to-face training, attachments, and study visits. The countries are using a combination of these modalities to suit their specific training needs.

Content. It is felt that the teacher training programme should be broad based and not confined to the curriculum materials only. Issues should be posed for discussion and informed resolution. The approach should be process-oriented and not merely content-oriented. This is a strategy to win lasting commitments as well as to give the teachers the necessary confidence.

Re-orientation. In view of the evolving nature of the subject re-orientations might be necessary. It is suggested that before subsequent training, the training and knowledge needs are elicited from the trainees themselves.

b) Training of other personnel

The persons in this category are the field-level service delivery workers, such as public health workers and agricultural extension workers, the committed voluntary workers and the other officers who are not directly involved but have an important support role. One has to be cognizant that the field-level service delivery workers and the voluntary community development workers have to achieve their own organizational objectives. Also one has to recognize that training programmes are available for the workers, organized by their agencies. Therefore, any population education programme has to be built into or otherwise integrated into the existing programme. The population related outcomes then became a major sub-objective while the organizational objectives remain paramount. It could be assumed that the purpose of all field-level service delivery programmes and of the work done by voluntary organizations is to improve the quality of life of the people. Therefore, one could expect that all the workers regardless of category or service should be committed to population education objectives, be knowledgeable about population related matters and be aware of the various agencies in population related work at the field level.

The training needs therefore should be issue-oriented and process-oriented in order to win commitment and to facilitate further and continued learning. Self-learning kits and reference materials should be sufficient to meet specific learning needs.

It is assumed that some organizational machinery exists for the co-ordination of the work done by several agencies at the field level. This machinery may not be sufficient to bring the different agency workers together as a team. It is suggested that when training programmes are arranged for field-level workers, it should be community oriented and not service oriented. All the workers of various agencies working at a village or other administrative unit are thus brought together at training seminars. Bonds of camaraderie built at these meetings will help smooth relations among these field-level workers. A common strategy for the development of a community could be also evolved at these seminars.

In the case of non-formal education engaged in out-of-school youth education or adult education, the above observation should apply.

Innovative Structures and Approaches

Curriculum and materials development

An important component of population education is curriculum and materials development. The curriculum and materials developed are crucial to the attainment of the ultimate goal of population education that of ensuring harmonious balance within the eco-system and for raising and improving the quality of life of the people.

The Workshop strongly feels that the curriculum and materials in population education should be mainly directed to value re-orientation - the modification of values that are posing as obstacles to development efforts. A few such values have been identified, namely, defeatism, fatalism, son preference, children as economic assets, population as source of power, and virility.

The curriculum objectives, contents, methodology of teaching and evaluation should inculcate healthy and scientific attitudes and dispel the irrational and unscientific attitudes which hold the mind in perpetual bondage.

It was felt that population education is not a transitory phenomenon of school curriculum. It will remain an integral part of curriculum, irrespective of whether population is controlled or remains uncontrollable.

Structures and approaches in curriculum planning and development

IN-SCHOOL

The introduction of any innovation such as population education in the school programme usually creates a need for a structure or mechanism to effect such a change. In the development of the curriculum in population education, which understandably is the most important element of this educational programme, different countries have used different organizational structures in curriculum planning, such as those given below:

Highly centralized curriculum-making body. A curriculum section within population education centre is established and managed by population experts, subject specialist, curriculum planners and administrators. This kind of arrangement enables the team to follow all phases of curriculum development because facilities are available and the staff are well-selected.

The hazard of such a set-up is that it could become an isolated 'Ivory tower programme' planned by a few individuals. This can be overcome by including teachers, parents and resource persons from other sectors at the planning stage.

Another disadvantage is that co-ordination with other curriculum areas may be neglected.

Workshop. This mode of developing the curriculum for the new programme has the advantage of wider participation in that participants from varied sectors can be easily convened since their services are needed only for a short time. They can also bring in a fresh outlook.

The *ad hoc* nature of the organization, however, may limit its task to purely preparation of the curriculum without the try-out and evaluation. It also has to work within rigid time constraints.

The central committee. The central committee is constituted by the the Education Department/Ministry composed of population education experts and teachers from inside and outside the Department/Ministry. The members of the committee are selected on the basis of their background and training in population education and subject areas.

The temporary nature of the committee and limited time for the assignment are the disadvantages of this arrangement.

Curriculum board. In one country, a curriculum board is organized consisting of subject specialists called counsellors. These counsellors who are also experts in class-room teaching work out and try out the curriculum. Content validity and relevance of the integrated population education content is ensured in this arrangement.

By limiting the membership to the experienced counsellors the curriculum may likely be narrow in scope.

Cell within the curriculum development centre. The creation of a cell or unit within the Ministry of Education's Curriculum Development Centre specifically for the development of population education curriculum. This allows for smooth inflow of communication among the curriculum planners and subject specialists. Full attention is given to the whole curriculum development process.

In this set-up, the Population Education Curriculum Unit and the Office responsible for teacher training have to have close co-ordination so that the materials sent to the teachers are used effectively.

Introducing population education

There are two approaches in introducing population education in the school programme, namely, integrated and separate subject approaches. The integrated approach, which takes different forms, is the more common modality.

Integrated approach. Population education has been integrated in various subject areas in the formal curriculum. Among the subjects used

as points of entry by the different countries are: social studies, health, science, mathematics, language, geography, practical work and home science. Integration is done in a number of ways such as:

a) Sub-unit. This involves the preparation of teaching unit to be added to an existing unit in the course syllabus of the subject area which is used as carrier of population education.

The disadvantage of this is the probable dislocation of the sub-unit when the syllabus of the accommodating subject is revised. Secondly, if the teacher has no course guide, he would not know when to teach the sub-unit prepared.

b) Infusion. This involves enriching and expanding existing units in the syllabi of the 'accommodating' subject areas to include population education related ideas.

While this approach ensures close interrelationship between subject matter of the subject and population education concepts, continuity may suffer and unsystematic repetition may occur.

c) Permeation. The curriculum of selected subjects are overhauled to allow for the permeation of relevant ideas. This allows for full integration of population education content in the curriculum thus making it an integral part of the subject matter content of the said subject.

Separate subject approach. The teaching of population education as a separate subject has been instituted in some countries. These also take various forms such as the following:

a) Elective subject. In a member country *Population Education for Better Family Living* is offered as an elective course in the high schools.

A unified course at this level can provide students who are close to the age of making population related decisions a deeper insight into population related matters. It provides an opportunity for tying up loose ends and gaps that arise from the mere integration of ideas in the various subject areas at different levels.

b) Mini course. Population education is taught as a 'mini course' taking time out of the period of a related subject area, e.g., social studies or science. It may be taught continuously for one day a week.

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As a unified course, population education is given some prominence and identity as a subject. However, the 'legitimate' subject areas are likely to be sacrificed, a thing that may cause resentment on the part of some teachers committed to certain disciplines. A mini course can be introduced at a time when the curriculum is not being revised.

c) Required subject. At the tertiary level, where institutions have more freedom to arrange their programmes, it is possible to include population education as a required subject. In teacher training colleges/universities especially there is enough justification to offer population education as a required pre-service education course.

OUT-OF-SCHOOL

Centralized curriculum unit in the population education programme centre

Curriculum planning for both in-school and out-of-school is the responsibility of the curriculum planning body in the Population Education Centre/Unit. This is done by experts from both sectors. In this way, the programme for the out-of-school will not suffer from identity crisis. The curriculum and materials are likely to be well-organized in this approach. A disadvantage may be that there is inadequate involvement of the audience for whom the programme is planned.

Central office for non-formal/out-of-school programme

An office for non-formal education exists under the Ministry of Education which is responsible for the curriculum for the out-of-school. An added responsibility of this office is to develop the curriculum in non-formal education. If planning and implementation of the curriculum is the same office, co-ordination of the agencies involved may be a problem.

Separate agency

Separate agencies prepare their own materials and implement them. The advantage is that they prepare materials according to the needs of their target audience. A disadvantage is that sometimes the personnel may be untrained and unskilled in the preparation of population education materials. Too much overlapping may also occur.

Workshop

The different offices, agencies, departments engaged in non-formal education organize workshops to assemble population education experts, non-formal education experts and representatives from other sectors to prepare population education curriculum for integration in their programmes. The materials prepared should thus suit their audience. This method is expensive.

All the countries in the region are engaged in programmes for the out-of-school. The integrated approach is the method used wherein population education together with responsible parenthood and family planning concepts are made as part of the programme of these agencies which are engaged in community development, rural development, and other socio-economic development programmes.

An advantage is that population education becomes an integral part of the development process. Lack of co-ordination might arise.

Preparation of instructional materials

Participating countries have developed a wide range of curriculum materials. It was recognized that there are some underlying principles which are crucial to the systematic and proper development of these materials. These have been identified as consisting of two categories:

Principles underlying the close relationship between curriculum materials development and teaching-learning methodologies

a) Instructional materials should be constructed in line with the aims of existing curriculum and the objectives of the population education curriculum.

b) In cases where population concepts are integrated into an existing subject the design and format should be consistent with that of the mother subject. In instances where population education is treated as a separate course, the instructional materials must be developed accordingly.

c) The application of instructional techniques and the essence of the instructional materials must be well linked. For instance value-laden issues must employ value clarification techniques or other techniques which have inquiry elements in them.

Principles and strategies that should be employed in the production of instructional materials

a) Content of population education should be so treated to include factual information based, conceptual based, issue oriented based and inquiry based. Every effort should be made to encourage and orient authors and media specialists, curriculum writers regarding this.

b) In order to obtain a wider spectrum and editions of instructional materials the following strategies should be employed:

(1) Commission or sub-contract to capable individuals or agencies to produce the materials.

(2) Invite writers of publishers to participate in the preparation/writing of instructional materials in an open competition. The materials can be assessed and selected, on the basis of which the school authority will choose which to use in schools.

(3) Consider and approve materials freely developed by individual writers/publishers/materials producer that are submitted for approval. These materials can be made available for sale in the market.

Development stages of instructional materials. The stages of materials preparation below is based on the analysis of processes of materials development for the in-school sector practised in participating countries. The same process is also considered relevant for the development of materials for the out-of-school sector. It is to be noted that the non-formal curriculum in population education is usually short, problem oriented, instructional and functional in character. The development of these materials needs to be adjusted accordingly.

A SCHEME FOR CURRICULUM AND MATERIALS DEVELOPMENT

Stage	Responsible Institution	Method of Operation
1. Preparation		
a) Evaluate quality of existing materials	Ministry of Education and other concerned agencies	Conduct survey, documentation analysis, workshop
b) Formulate criteria of desirable standard of materials	Ministry of Education with the co-operation of representatives from school, supervisory unit, educational administration, teachers' college/university and specialist	Conduct seminar, workshop and group work with experts and educational administrators
c) Organize reference services for group work preparing materials	Ministry of Education and group work mentioned in 1. b)	Reference service
d) Draft and adopt operation schedule for producing materials	Ministry of Education and other responsible agencies concerned	Conduct workshop and group work then hold a meeting with private enterprise administrators to orientate them to materials development criteria and planned schedule
2. Development		
a) Prepare first draft	Ministry of Education designated working group	Group work with mini testing of drafted materials
b) Try out of first draft	Same as 2. a)	Group work, field test
c) Revise the first draft and adopt the final draft	Same as 2. a)	Group work with 'sanctioning session' with experts/educational authorities

Stage	Responsible Institution	Method of Operation
d) Examine and approve materials produced and proposed by individual/ publisher/ producer	Ministry of Education and Committees appointed by the Ministry of Education	Committee work with 'sanctioning session' as in 2. c)
e) Publish and disseminate approved materials	Ministry of Education and agencies concerned	Publish and disseminate the approved list and hold exhibition of the materials
3. Implementation		
a) Awareness and orientation activities	Ministry of Education and other responsible agencies concerned	Meeting, seminar, in-service training programmes
b) Supervision and follow-up	Same as 3. a)	Supervisor and administrator visit and supervise the utilization of materials - urge the operating units to help each other in more effective usage of materials - encourage local authorities to collectively produce low cost materials - encourage the utilization of available local resources owned by private enterprises and government
4. Evaluation and Revision		
a) Conduct action research	Ministry of Education conducts research by itself or by commission capable research organization	Committee work, group work
b) Evaluation activities	Ministry of Education and other agencies concerned	Field work, committee work
c) Revision activities	Ministry of Education and other responsible agencies concerned	Group work, committee work with 'sanctioning session' as mentioned in 1. b)

Co-ordination with different agencies/departments and administrative organization

Introduction

The word 'co-ordination' is defined as a process or a strategy by which population education programme is designed to achieve broad and specific goals through consultation efforts involving all governmental and non-governmental agencies concerned with the dissemination of population education concepts from population education policy formulation, planning implementation, monitoring and evaluation. The population education concepts for dissemination are those areas presently considered in the in-school population education programmes such as curriculum development, training of teachers, production of materials, and areas such as responsible parenthood, population dynamics and development components.

This section includes the general guidelines that are applicable to all phases of co-ordination of population education activities. These general guidelines are followed by strategies in: i) co-ordination within in-school population education; ii) co-ordination in out-of-school programmes; iii) co-ordination between in-school and out-of-school programme; and iv) co-ordination between population education and other population activities.

General guidelines of co-ordination of population education activities

a) Co-ordination criteria

Co-ordination of any programme or activities to be undertaken would require the following criteria:

(1) Clear cut policy on what to co-ordinate.
(2) Definite goals or objectives.
(3) A comprehensive plan of action.
(4) A set of strategies to be adopted.
(5) A less bureaucratic agency.
(6) An agency or a conglomeration of key/major agencies.
(7) A strong technical and support staff.
(8) A dynamic, open-minded, development-oriented and active leadership; and
(9) A structure designed to answer to every need of the population at all educational levels (national middle-regional/provincial/city and community).

b) Approaches or models of co-ordination

There are several approaches or models of co-ordination. Among others, they are:

(1) Population education for in-school population can be co-ordinated by the Ministry of Education.

(2) Population education for out-of-school population under one agency.

(3) Population education for in and out-of-school population can be co-ordinated jointly by the Ministry of Education and another ministry or ministries or a government entity concerned with out-of-school programmes.

(4) Population education for in and out-of-school population could be co-ordinated by a body created to function as population education policy-making programme planning and development, and implementing body authorized by a higher population policy-making and planning board. This body shall be supported by technical and administrative staff with varied disciplines or professional background from government and private agencies.

These models of co-ordination to be effective must be operationalized taking into consideration the political, social and educational services delivery systems existing in a country. These systems might not be present in all countries but other types of delivery systems could be adopted to provide the needed educational services to the people in rural areas where 80 per cent to 90 per cent of the population is located.

Suggested approach for adopting co-ordination guidelines

In general, co-ordination without properly involving the key people and agencies tends to result in low performance and short of accomplishing the set goals. More often than not the credibility of the co-ordinating agency is being questioned. Thus, the essence of co-ordination is lost and the expected efficient implementation and control of the programme is proved to be beyond recovery.

Involvement therefore is the key element of co-ordination in the approach.

There are several assumptions to consider in this approach. These are:

1. A population policy adopted by the government in conjunction with the development plan of the country.

2. A family planning policy and programme distinctly delineating its scope and coverage from that of a population education policy and programme.

3. A structure that is flexible to answer the changing need in the implementation of a proposed programme for in-school and out-of-school population.

4. The availability of funds from donor agencies and national sources.

5. Phase-in and phase-out financing scheme will be adopted where international and national funding will be shared until the total project cost is absorbed by the national funding source.

The process

1. The co-ordinating body/agency uses as frame of reference the broad national population policy and the broad goals of the approved broad population education programme. A national committee composed of heads of agencies will be convened to develop and adopt broad national co-ordination guidelines, considering the problems being encountered at present and possible future problems that might be encountered.

2. The output of this national committee will be circulated for the regional and local level agency heads to review and comment on with the end in view of considering the existing and future problems and issues of the population education programme implementation.

3. The national committee will discuss the guidelines together with some of the regional and local level agency heads. This collaboration effort will finalize the guidelines taking into account the comments and recommendations of the middle and local-level agency heads.

4. This guideline should be adopted by all agencies involved in the population education programme, prior to the launching of a jointly co-ordinated population education programme.

5. Since this guideline is broad, implementing details should be developed and again adopted by the implementing agencies at regional and local levels using the processes involved from numbers 1 to 4.

Co-ordination of in-school population education programme

For in-school population education programme, co-ordination should be from the top level down to the grass-roots level. The following models are suggested:

A national or central body. This is a separate body at the national level, the task of which is to co-ordinate the population education programmes in various levels and types of education. It should have branches in the provinces and districts. For the tertiary level the co-ordination is at the national level since higher education has its own autonomy.

a) Advantages

(1) It has its own allocation of budget so that there will be more opportunity to develop and implement all the activities.

(2) It can recruit personnel according to the needs of the programme.

(3) Research and evaluation can be carried out by its own staff members.

(4) Development of curriculum, instructional and audio-visual materials can be done according to the needs of the programme.

(5) It will be easier for the donor agencies to channel their resources.

b) Disadvantages

(1) Since it is a separate body the output of the programme may not be in line with the needs of the subject matter in which population education is integrated, especially in the primary and secondary levels.

(2) This would require a large staff to make sure that all proposed concepts are integrated to certain subject matters.

(3) Research and evaluation will be in a wide scale since population education is an interdisciplinary programme which involves many areas of study.

(4) Supervision will be a hard task since this body is not in a line-command of the schools.

(5) Feedback will be obtained indirectly from school via the school superintendent and supervisor.

(6) Co-ordination with the higher education should be well established so as to get their participation and support to make population education a programme of higher education.

Centre within the Curriculum Development Centre. This means that the body becomes a part of the Curriculum Development Centre which has specific task for population education. This Curriculum Development Centre is usually under a bigger bureau or office for educational research and development. In some countries, this bigger body is a separate body at the level of Directorate General. So, the Population Education Centre will be a division within the Curriculum Development Centre.

a) Advantages

(1) There will be more facilities since the Curriculum Development Centre is the place where curricula are developed.

(2) The relationship between various curricula can be maintained.

(3) It has more authority to go in the field to know what happened with the implementation of the programme.

(4) Feedback can be obtained right after the supervision.

(5) Monitoring of the implementation will be easier.

b) Disadvantages

(1) Allocation of budget will be limited since it has to be distributed according to the importance and urgency of the programme.

(2) Supervision can only be carried out directly altogether with the supervisors since this body has no authority in schools.

(3) Since much has to be done by Curriculum Development Centre so there will always be possibility to neglect the population education programme.

(4) This body can only reach the primary and secondary levels while the tertiary level will be left out.

(5) After the institutionalization this body will not be functioning, because the responsibility of the implementation of the programme is now in the hands of the administrators.

Cell in the bureau of planning. This means that this Cell is a part of the planning bureau and this can be done if population education has already been institutionalized in the curricula of the schools.

a) Advantages

(1) The overall planning is done in the bureau, so population education can be planned accordingly, so that it will be really an integral part of the education system.

(2) Allocation of budget will be more secured, since this bureau has important role.

(3) There will be no difficulty for the administrative aspect in developing curriculum, instructional and audio-visual materials and training teachers.

(4) Usually it has branches or units at the provincial level.

b) Disadvantages

(1) Since it is an administrative body, usually it lacks expertise and experience in the technical field.

(2) Supervision will be a hard task, since most of the duties are administrative in nature.

(3) It will be hard to convince the bureau head on the importance of population education since his work is mostly administrative in nature.

(4) The tertiary level will not be included.

Cell in the regular mechanism or structure. This means that this Cell is an integral part of the regular mechanism in the sense that there must be a built-in mechanism for population education programmes. There is no separate body outside the unit which has full command of the schools.

a) Advantages

(1) Because it is built-in, everyone who has the task and duty to control the school setting must have in mind that population education is an integral part of the educational system. Responsibility is divided among those people.

(2) Supervision will be done along with their regular task.

(3) No difficulty in recruiting personnel.

(4) Training of personnel will be made easier.

(5) Development and revision of curricula, instructional and audio-visual materials will be easier because those involved are technical people.

b) Disadvantages

(1) There is a possibility that population education will get less attention since it is integrated in the subject matter.

(2) Supervision will possibly overlook the population education programme since it is not spelt out clearly.

(3) Technical and other activities may result with the possibility that population education will not get the necessary attention.

(4) Revision of curricula, instructional and audio-visual materials could not be done separately outside the overall technical activities.

(5) Research and evaluation will be out of the question since this body has nothing to do with them.

(6) Tertiary level will not be included.

Co-ordination of the out-of-school population education programme

Through the country reports it was found that most of the member countries presented in this Workshop do have population education activities carried out outside the school system. These are either being incorporated in the on-going development programmes being implemented by various national development agencies or implemented as an additional component to these activities.

To cite an example, the Ministry of Agriculture of Malaysia uses their agricultural officers and extension agents as means of contact to provide agricultural information to the farmers in the rural areas. This is done through organized meetings, meet-the-people sessions and group discussions. These agricultural extension agents are trained by the Ministry with the assistance of the University of Agriculture. Population education is taught in this university as part of the curricula. Since

the extension agents communicate with the farmers, population education is directly conveyed and discussed in the course of their meetings.

There are many more such agencies involved in the national development programme of the country using such extension agents in the respective countries. Each of these agencies, do have their own administrative structures, resources and programmes including population education activities.

Apart from that there are the voluntary family planning agencies and in some cases, the national family planning boards or commissions which carry out population/family planning I.E.C. activities with elements of population education being introduced and implemented as part of the total I.E.C. programme.

The population education activities of these agencies have to be co-ordinated so as to avoid duplication and unnecessary waste of resources. For a country where there is a National Family Planning/Population Board/ Commission it is believed that co-ordination is best done by this body which also determines the country's population policies.

In countries where such structures do not exist it is suggested that a co-ordinating body be formed consisting of representatives of the agencies involved to ensure a practical and acceptable function.

Co-ordination between in-school and out-of-school programme

In order to find out the types of co-ordination and their strategies, required between the in-school and out-of-school programmes, one must consider the following questions as they will lead to the suggestion as to how to co-ordinate or what is needed for co-ordination.

1. Is there any existing out-of-school programme?

2. Are there both governmental and non-governmental organizations engaged in education? If so, does the administrative structure of the ministry/ ministries reach the same level or different levels?

3. Do out-of-school programmes use school personnel or school facilities? If so, at what form and what degree?

4. Does the programme exist within in-school such as parent class, adult class in the evening operated by school?

5. Is the programme designed to supplement school programme or only for those who had not been in school education? Is it on top of what one was trained in school?

6. Who are the target groups? Are they parents or brothers or sisters of school pupils? What is the level of education?

7. Is out-of-school programme transferable to formal school?

8. In what form does education take place both in content and machinery, e.g., institutions? Organized group? Mass-media (Television and Radio)? Incidental teaching in street? Visiting home?

The nature of out-of-school programme is decided mainly by the status of in-school programme. Regardless of its context, out-of-school programme must be based on who are the target audience.

1. For those who did not have a chance to go to school.

2. For those who left school.

3. For those who are in school but want supplementary training (continuing education).

The basic assumptions are that the school can offer their services to out-of-school programme and out-of-school programme can offer services to in-school programme. Without co-ordination, the two educational programmes may become inefficient as both are so closely inter-related. Therefore, from planning to implementation stages, co-ordination is required.

The areas in which co-ordination is envisaged between in-school and out-of-school sectors are as follows:

1. Programme planning
2. Expert personnel
3. Facilities
4. Materials
5. Information
6. Target group
7. Training equipment
8. Training role.

The school programme can benefit from the resources of out-of-school programmes and vice-versa.

POPULATION EDUCATION TARGET AUDIENCE AND
RESPONSIBLE AGENCIES REQUIRING CO-ORDINATION

Class	Target Audience	Responsible Organizations	
		Government Ministry	Non-Governmental
In-school	Pupils Students Teachers	Ministry of Education	Teacher Association Student Association
Out-of-school	Parents	Ministry of Education, and others	Parent Teacher Association
	Business and Industrial employees	Labour Industry	Labour Union Business Association
	Farmers/Fishery	Agriculture	Farmers' Association
	Civil servants	Other Government Ministries	
	Politicians	Parliament	Political
	Professionals	Universities Ministries	Academic Societies, etc.
	Others	Concerned Organizations	

The co-ordination between in-school and out-of-school population education programmes can be done either through the voluntary efforts of different Government Ministries and non-Government organizations or through legislative or governmental directives.

The advantages of voluntary approach are:

Firstly, the co-ordination will be done in more flexible ways and therefore autonomy of each participating organization will be maintained.

Secondly, the implementing organizations since their autonomy is maintained will be willing to co-operate with each other and showing their interest with higher motivation to participate.

Thirdly, the co-ordination will be internalized and endured at the grass-roots level regardless of political change at the national level.

Fourthly, the co-ordination will be much more effective as the programme once decided by the committees will voluntarily implement the programme for each agency's own benefit.

Some disadvantages will be that, firstly, it will not be easy to reach decisions as each agency may stick to their vested interest.

Secondly, since there will be lack of leadership and hence there is danger of neglecting to take responsibility.

Thirdly, since there is nobody responsible, it may be difficult to call all agencies concerned. Thus it will become fragmented rather than comprehensive.

The governmental directives may solve the problem or remedy the weakness of the voluntary approaches. All the points indicated in the advantages of the voluntary approaches can be interpreted as disadvantages of the directives from the government. In short, co-ordination through the governmental approach may lead to rigidity, one sided communication from top to bottom, superficial and ineffective in the long run.

Having analysed the pros and cons of voluntary and government directive approaches, the co-ordination mechanism between in-school and out-of-school programmes can take neutral approaches which means to establish policies at the national level to ensure co-ordination and leave maximum flexibility to local school and out-of-school authorities and agencies in the implementation.

MECHANISMS OF CO-ORDINATION

Level	Co-ordination	
	Voluntary	Governmental
National) Regional) Provincial) ⟶ Local) School)	Voluntary Committees, Informal discussion and meetings/seminars of representatives, staff personnel, in educational organizations and non-formal education sectors	Legislation Government directives Organized body with power

Co-ordination between population education and other components of population policy

It is presently recognized that population education, in most countries, has emerged or is emerging, as one of the strategies for operationalizing the national population policy (explicitly enunciated or implicit in the national socio-economic development policy). The co-ordination between population education and strategies adopted and programmes undertaken in relation to the other components of the population policy is of vital importance. If it is not being taken care of at the appropriate level, achievement of the goals set forth in the population policy statement would be difficult to realize. In the absence of co-ordinated effort, there may arise social and political problems. For example, when population - environment awareness programme developed for the students through population education and this concern is not reflected on the part of the government by way of legislative and administrative action, it may lead to agitation and even confrontation. Population education, therefore, needs to be co-ordinated with all social, economic and legal measure, affecting fertility and migration. This can be done only at the highest level of planning and administration.

The appropriate body which can ensure co-ordination of the nature mentioned above would be the apex national agency having both responsibility and authority of total socio-economic planning viz., National Planning Board/National Planning Commission/National Development Council/ National Planning or Development Committee. If necessary, a separate committee may be constituted for this purpose but under the apex body. The main task of this body should be the co-ordination in total planning and resource allocation. The secretariat of the proposed committee may be located in the Ministry/Agency responsible for translating the population policy into action.

In a country where the National Planning Board does not exist, a separate Cabinet sub-committee may be set up in the Prime Minister's Office or the Office of the President, as the case may be. The proposed arrangement would take care of initiating legislative measures through the concerned ministries/agencies. It would also review the implementation of the population policy (including population education) on a periodic basis.

PART TWO

COUNTRY REPORTS

DEMOCRATIC REPUBLIC OF AFGHANISTAN

Population situation

The Democratic of Afghanistan consists of 26 provinces, with a total land area of 652,900 square kilometres. The total population is estimated at 15,540,000 (1979). It is divided as follows:

Urban population	-	1,720,000 or 11.07%
Rural population	-	11,320,000 or 72.84%
Nomadic population	-	2,500,000 or 16.09%

The fertility, mortality and growth rates of the Afghan population in 1978 were as follows:

Crude birth rate of the:

Total population of the country	46.17 per thousand
Urban population	38.00 " "
Rural population	46.40 " "
Nomadic population	46.40 " "

Crude death rate of the:

Total population of the country	21.07 per thousand
Urban population	13.00 " "
Rural population	22.40 " "
Nomadic population	22.40 " "

Population education programme

Population education is not synonymous with family planning, especially the narrow concept of family planning i.e., designed to prevent births and to control population growth. It is an educational programme aimed at providing young and adults with knowledge and understanding about population dynamics, the causes and consequences of population growth, the interrelationships of population change and development efforts, as well as components of quality of life - health, housing, environment, food and nutrition, clothing, education, employment and social services. Through population education, it is hoped that the quality of life of the people of the Democratic Republic of Afghanistan will be enhanced.

In-school population education programme

The Ministry of Education and the Ministry of Higher Education and Kabul University have already integrated population education content in their respective curricula. However, they all agree that this is not

adequate. They plan to do more. The Translation and Compilation Department plans to further enrich selected subjects, such as health education, practical work and social studies (including geography and history) with more population education content. The curriculum for the primary and secondary are now being revised so that population education can appropriately be considered.

In institutions of higher learning, the plan is to integrate population education content in courses in the Faculty of Agriculture (population dynamic and agriculture goods), Faculty of Engineering (population change and manufactured goods), Faculty of Science (biology and ecology); Vocational School (economics, home economics and law).

Non-formal education and population education

All the different agencies implementing development programmes plan to integrate population education content in their non-formal education activities. These are briefly discussed below:

1. Khalqi Women's Organization. The organization aims to educate young people on the disadvantages of early marriage, ensure women's political and social awareness, improve the life of mothers and children, and increase the literacy of women.

2. Armed Forces of DRA. Deliberate campaign has been launched after the Saur Revolt to educate the army personnel.

3. Rural Development Department. This department believes that education is the key to rural development. The department has 12 projects at the provincial level. The work of the department is complementing the work of other agencies in improving the life of the people in the villages.

4. Ministry of Public Health. The Ministry of Public Health has many programmes designed to improve the life of the people, such as the eradication of smallpox and other fatal diseases.

5. Family Guidance Association. The activities of this association, especially those related to family planning began in 1967. Its job is not only to help in family planning but also in promoting the health of mothers and children.

6. Ministry of Agriculture and Land Reform. Population education will be integrated in their village youth education programme. Topics related to both population and agricultural production will be the content of literacy materials.

7. Ministry of Culture and Information. This Ministry is doing a good job in keeping the masses informed, especially on the important development programmes of the Government.

8. Khalqi Radio and Television of Afghanistan. The two media are being used by the Government of the Democratic Republic of Afghanistan for the promotion of non-formal education, family life education, health education, and agricultural and other development programmes.

Since there are so many agencies involved in non-formal education programmes, which want to integrate population education in their educational and development programmes, the consensus is that the General Agency for Literacy Campaign (GALC) should provide the leadership role of all such agencies.

BANGLADESH

Population situation

A country of 56,000 square miles crisscrossed by mighty rivers with their innumerable tributaries, Bangladesh today has approximately 87 million people. If the current rate of population growth of 2.8 per cent continues, Bangladesh will double its population in 25 years making it one of the world's most crowded countries.

Among the population, 52 per cent are male and 48 per cent are female, with 48.1 per cent of the population below the age of 15 years. Literacy rate is estimated at 22.2 per cent. In this predominantly agriculture society, about 40 per cent of the families are landless.

The present per capita income is estimated at US$80. Among the pre-school aged children only 3.5 per cent could be classified as nourished, 50 per cent are suffering from malnutrition and 25 per cent from severe malnutrition. Thus the socio-economic condition now in Bangladesh is far from satisfactory.

Population characteristics

Birth rate	:	44 per thousand
Death rate	:	16 per thousand
Growth rate	:	28 per thousand
Infant mortality rate	:	140 per thousand
Density of population	:	1,550 per square mile
Dependency ratio	:	100:105
Population under 15 years	:	48.1 per cent
Population in rural areas	:	91.2 per cent
Life expectancy	:	48 years
New population per year	:	2.37 million

From the above we can observe that the population in Bangladesh is characterized by: a) high birth rate, b) falling death rate, c) high infant mortality rate, d) young age distribution, and e) high and increasing growth of density of population.

The high birth rate is associated with universality of marriage, low age at marriage and practically non-interference with fertility behaviour and outcome. At present nearly half the population is under 15 years of age. The present high rate of population growth and the percentage of dependent population will further increase aggravating the already unfavourable population situation. Such a high dependency ratio is not conducive to growth of the economy of a developing country.

Innovative experiences in population education

In-school population education. The Ministry of Education decided that population education will be introduced as an integral part of the curricula from Classes IV-XIV of the formal education system. As a result two projects were undertaken by the Ministry of Education - one funded by UNFPA and the second by International Development Assistance (IDA). The actual implementation of the projects started in 1976 and will terminate in June 1980. As per decision of the Ministry of Education, the IDA project will be phased out in June 1980 and there will be only one project in population education in the Second Five-Year Plan. This will be funded by UNFPA.

During the current plan period, population education curricula for Classes IV-XII have been developed and population education has been introduced in the textbooks for Classes IV and V. Key personnel from teacher training colleges, headmasters of secondary schools and other educators have already been trained. About 45 per cent of primary school teachers and 40 per cent of secondary school teachers have been trained and oriented through the programme and pre-service training.

a) Immediate objectives

(1) Introduce population education in Classes IV to X through supplementary teaching-learning materials.

(2) Provide orientation programme for students of men's and women's colleges through extension lectures.

(3) Develop sample teaching-learning materials for Madrasahs (religious educational institutions) and vocational institutions.

(4) Provide face-to-face training to 67,000 teachers of primary, secondary and tertiary levels including teachers of Madrasahs, vocational and commercial and technical institutions.

(5) Develop audio-visual kit for use in the pre-service and in-service training of teachers.

(6) Produce three issues of the Population Education Bulletin to keep teachers and educators abreast of the developments in population education.

(7) Organize radio and television programmes to strengthen population education programmes in formal school system.

(8) Undertake evaluation of the materials' training programmes as well as implementation of population education programme at various levels.

(9) Assist in the development of population education materials for adult education programme.

b) Administrative organization and co-ordination with agencies. The population education programme is functioning as an attached department of the Ministry of Education. An executive committee headed by the Minister/Adviser of the Ministry of Education is responsible for policy planning and overseeing the activities of the programme. The Population Education Programme has five divisions:

(1) Planning and Co-ordination;
(2) Curriculum and Materials Development;
(3) Training;
(4) Documentation and Publication;
(5) Evaluation and Research.

Each division is headed by an Assistant Director. The programme has full-time executive director who as head of the population education programme will be responsible to the Executive Committee. The programme will continue to have a full-time officer (District Programme Administrator) with a small staff in each district of the country. The Executive Director directly communicates with officers of education department and the District Programme Administrators. The Programme Administrator will work in co-operation with the district-level officers. The Thana Education Officer is the lower-level linkage of the programme.

Out-of-school population education. The out-of-school youth in Bangladesh, who are mostly illiterates, outnumber those who are in the formal school system. The Government departments, through a multi-sectoral approach, and some local and international organizations run programmes in population education (mainly for orientation and awareness) of the out-of-school youth and adults. These Government departments are: Agriculture, Integrated Rural Development Programme (IRDP), Information and Broadcasting, Social Welfare and Labour, Health and Population Control, etc. Of the voluntary organizations, the role of the Bangladesh Family Planning Association is worth mentioning.

The Social Welfare Department has two programmes - one is 'Population Education for Out-of-School Youth' and the other one is 'Use of Rural Mother's Centres (popularly known as Mother's Club) for population activities', The Population Control and Family Planning Division has innovative programmes on Population Programme in '*Swanirvar* villages' and 'Population Education through Religious Functionaries'.

The Government sponsored '*Swanirvar* movement' (self-reliant) is the most important project. It is a project designed to conduct comprehensive training of self-reliant workers involved in development activities through village committees in 700 selected intensive '*Swanirvar* unions'. The main objectives are to promote and accelerate population education and family planning activities through continued motivation and training of community leaders and workers. It also provides support to self-help activities designed to realize self-reliance in the villages.

The Bangladesh Family Planning Association has been utilizing the existing youth organizations like *Jatio Samity Sangha* (National Youth Organization), Bangladesh Crameen Juba Samity, National Youth Council and Bangladesh Volunteer services. The BFPA has an integrated ongoing project since 1978 and will continue to function through 1980 and onwards.

In Bangladesh, there is no clearing house services. Each organization and Ministry has its own miniature library which has population education materials and publications.

FIJI

Population economic characteristics

Fiji's population is about 600,000 and the last census was conducted in 1976. The growth rate in population in 1970 was 3 per cent. However, in 1976 it dropped to 1.7 per cent.

Economically, Fiji is a developing country. It has a large agricultural base, sugar cane and copra being its main products. Its manufacturing sector is growing, mainly to meet local requirements, but attempts are also being made to serve the other South Pacific territories with a limited range of manufactured goods. Tourism as an industry has grown rapidly in the past decade.

Although school attendance is not compulsory, in 1976 the full-time enrolment of all schools increased by 1,173 to 166,689. The primary enrolment increased by 1,344 to 133,627 while the secondary roll increased by 2,686 to 30,758. The full-time enrolment of technical and vocational schools and the teacher training colleges was 2,304.

About 29 per cent of Fiji's total population attended school full time in 1978. The percentage of 6-13 years old population that are attending school rose from 95.6 per cent in 1975 to 95.8 per cent in 1976 while the corresponding figure for 6-11 years old rose from 98.6 per cent in 1975 to 98.9 per cent in 1976.

Individuals are considered to be functionally literate if they have completed at least five years of primary education. Using this definition literacy among persons aged 15 years and over has risen from 72 per cent at the time of the 1966 Census to 79 per cent in 1976.

Innovative experiences in population education

In-school population education. The Fiji Ministry of Education has already introduced topics of population education in the various courses that have been developed for Fiji schools through the infusion approach. The following six major areas of population education have been discussed in the courses:

1. Population growth;
2. Economic development and population;
3. Social development;
4. Health, nutrition and population;
5. Biological factors - family life and population;
6. Family planning policies and programmes.

The first four areas are regarded as the core of any population education programme and the remaining two are usually regarded as the integral part of a family life education programme.

In the Fiji context 'human reproduction' is one such area which has already been included in the biology courses. The usefulness of its inclusion is very obvious because students learn that birth is not a matter of chance or divine gift but a matter of individual decision.

The purpose of a systematically developed population education programme should be that children by the end of their secondary schooling, would have an understanding of demographic processes of interaction between population and public policies and of the nature of human reproduction and the fact that family size can be controlled.

Aspects of population education in the Fiji school curriculum.

a) Basic science. One of the aims of the course is to develop the students' understanding of their present environment and their possible future environment and the extent to which man is dependent on his natural environment, particularly the land and its produce.

A topic on population regulation under the following headings is taught at Forms 3 and 4 level.

(1) The need for balanced foods;
(2) Man as manipulator - selection of plants;
(3) Physical and biological factors affecting the distribution of living things, including man;
(4) The need for human population control programmes.

The topic of sexuality is discussed at different levels as shown below:

Form 1: Sexual differentiation, life cycle of insects;

Form 2: Puberty - change during puberty;

Form 3: Sexual and asexual reproduction in plants;

Form 4: Reproductive organs - conception, gestation and birth. Sexually-transmitted diseases.

Hormonal changes - elementary treatment.

Human reproduction, various methods of contraception, sexually transmitted diseases which affect the foetus, drugs that are harmful to the foetus, the functions of a family are discussed in the Biological Science programme for Form 5 that has been developed by the Ministry of Education.

b) Social science. In the social science programme developed by the Ministry of Education for Form 4 some aspects of population education are included under the following headings:

(1) Living in towns
(2) People
(3) Communities
(4) Looking at families.

The family is an important social and biological phenomenon responsible for mechanics of population change, control and socialization. The study of 'Families' dwells around:

(1) types of family groupings;
(2) kinship network;
(3) generation;
(4) family roles;
(5) kinship patterns;
(6) marriage and other institutions.

Although the core studies of the social science programme are general and deal with broader concepts, the support studies provide pupils with alternative case experiences.

A unit on population and urban development produced by the Ministry of Education deals with various aspects of population in Fiji. The important points discussed in this unit fall under the following headings:

(1) The nature of Fiji's population - composition, number, growth and age/sex structure;

(2) Distribution of population - reasons for density and distribution;

(3) Forces affecting population growth;

(4) Migration - internal migration in Fiji, urban rural migration, external migration;

(5) Features of urban development - growth rates, problems of urbanization.

c) Mathematics. In mathematics programme developed for Forms 1-4 wherever possible exercises on population growth have been included to make students aware of the rapid increase in population in addition to developing their mathematical skills.

INDIA

Population situation

The area of the country is 3,298,987 square kilometres. This forms 2.3 per cent of the total land area of the world. Every seventh person in the world is Indian.

The Republic of India comprises of 22 States and 9 Union Territories. There are 16 recognized languages and a large number of dialects in use in different parts of the country.

Population characteristics

The year 1921 may be noted as the year of the great divide in the demographic history of the country. It is from this period that the population of India began to grow perceptibly and by 1961 developmental programmes were beginning to be affected by the phenomenon of rapid population growth. The population of India which had been 231 million in 1921, rose to 548 million by 1971 and has reached the figure of 650 million (approximately) in 1979.

The distribution of India's population today is approximately 20 per cent urban and 80 per cent rural.

Between 1921 and 1971 there has been a decline in the female sex ratio from 972 per thousand to 930 per thousand males. In the same period, the death rate has dropped dramatically from 36.3 per thousand to 14 per thousand, while the birth rate has come down from 46.4 per thousand in 1921 to around 33 per thousand in 1977-1979. The infant mortality rate has been halved, while life expectancy risen from 23 to 52 years.

The overall growth of the India's population has increased from 1.1 per cent per annum to 2.57 per cent per annum. With this rate of population growth, India's population is likely to double in the next 28 years.

Innovative experiences in population education

In-school programmes

a) Awareness and orientation - the National Council of Educational Research and Training as the apex body for in-school programmes has organized national and regional workshops and seminars for key personnel in population education since the inception of the programme in 1970.

b) The Population Education Unit in the NCERT prepared an outline of the curriculum in population education for an eleven-year school programme in 1970

- 1971. The selection of content was to be attempted as to include population growth; economic development and population growth; health, nutrition and population growth; social development and population growth; biological factors - family life and population.

For implementation, the State Educational apparatus are as follows:

(1) The SCERTs plan the curricula up to Class VIII under broad policy framework laid down by the NCERT. Secondary level curriculum is planned by the Board of Secondary Education.

(2) Implementation is undertaken by the Directorate of the State Education Departments.

c) Curriculum and materials development. The Population Education Cell in the NCERT initially developed curricular material for infusion of population concepts into the school curriculum.

This was followed in 1974 by the planning of syllabi for teacher training both at the elementary and secondary levels of education as well as the publication of a manual *Population Education for Teachers*.

Other materials include the development of *modules* in population education to be incorporated in such subjects as social studies, general science and biology. This involves the examination of each individual subject in the existing school curriculum with a view to identify population related ideas that could be incorporated into each discipline. Exploratory work in 15 areas of study ranging from geography to physiology has been attempted.

d) Training of teachers. The training of teachers has been a major concern of the Population Education Cell.

A large number of workshops, seminars and conferences have been organized by the Cell to train key personnel. Other agencies which have supplemented the overall population effort include the World Health Organization;

Central Health & Education Bureau; the Family Planning Association of India; the Population Studies Centre at the Sri Venkateswara University, Tirupati; the Population Education Project, M.S. University, Baroda; the Pathfinder Fund's Population Education Project, New Delhi, all of whom have worked in close association with the broad framework evolved by the NCERT Population Education Unit. The Family Planning Association of India has prepared a film 'Down to Earth' which serves as a good introduction to population education. The Association has also funded cells for population education in seven Universities in India.

e) Research and development. A large number of studies have been taken up in attitude assessment of teachers, students, others towards population education and allied areas.

The evaluation of the effectiveness of the programmes is being attempted through the efforts of the State Councils of Educational Research and Training (SCERTS).

f) Administrative organization and co-ordination

(1) The Ministry of Health and Ministry of Education collaborate to chalk out a common policy on school health and population education.

(2) NCERT guides the State Departments of Education through supply of model curriculum preparation of instructional materials, training of key personnel.

(3) State SCERT's Boards of School Education prepare co-curricular instructional materials.

(4) Departments of Health in the State are consulted by the Departments of Education in matters of health and population education.

(5) Boards of School Education in the States exercise academic control, while the administrative control over the implementation of the programmes rests with the Education Departments of the State.

(6) The overall co-ordination is effected by the Ministry of Education through exchange of ideas and persuasion through reasoning rather than by authority. The autonomy of the States in

matters of school education is exercised on the basis of constitutional provision by the government of states.

Out-of-school programme. The Five-year National Adult Education Programme launched by the Directorate of Adult Education on 2 October 1978 seeks to bring 62.5 million Indians (chiefly within the 15-35 age range), into the mainstream of the country's developmental endeavour.

By means of a composite approach - of which the key factors are literacy, awareness and functionality - the programme aims to heighten awareness in regard to existing developmental inputs, including awareness of the population situation and family well-being. It also seeks to raise literacy levels and to engender economic self-reliance.

State education authorities and various governmental and voluntary agencies have been allocated responsibility for the implementation of this programme.

Two national seminars, one of these jointly organized by the Directorate of Adult Education and the Family Planning Association of India, have been held and a great deal of ground work done.

Apart from this national programme, population education has been incorporated into the training programmes for industrial workers; for health and community development workers; for agricultural extension workers, and co-operative.

The Family Planning Association of India (a voluntary body) has taken up some innovative non-formal population education work for out-of-school youth in the age groups 6-12 and 12-25, through story telling, songs and drama, films as well as by means of long-term Family Life Education and the establishment of Population Education and Youth Clubs organized by young people themselves.

INDONESIA

Population situation in Indonesia

Indonesia stretches across the equator between the Asian and Australian continent. It has a land area of about 2.5 million square kilometres consisting of about 13,000 islands of which 7,000 are inhabited.

Indonesia is the fifth biggest country in the world in terms of population. There are now (1979) about 140 million population and it has been projected that by the end of this century the population will be over 200 million.

Mortality rate has dropped sharply whereas fertility rate is still high. It was assumed that the reason behind the constant high fertility rate was the agricultural nature of the economy where children are considered as economic assets and free labour.

Rural population is comprised of 82.5 per cent of the total population while the remaining 17.5 per cent are in the urban areas. Since rapid population growth exists mostly in the rural areas, fragmentation of land cannot be avoided. This leads to disguised unemployment and high rural-urban migration.

The average education of Indonesian people is still grade V elementary school.

The Government considered population programmes important and included them in its First-Year Plan in 1969. It has since been treated as a top priority in the development programmes.

Population characteristics

1. The average number of children in the family is between 4 and 5.

2. Indonesia has a rapid population growth (2.3 per cent) which will double within less than 35 years. The National Family Planning Co-ordinating Board has the target of decreasing the growth rate down to 1.3 per cent by 1990.

3. There is a maldistribution of population. Around 65 per cent of the population live in Java and Madura which are only about 6.6 per cent of the total land area. Therefore, different population density occurs among the islands and problems arise as how to provide manpower in the thinly populated area and how to provide employment in the densely populated area.

4. The age composition of the population shows a high dependency ratio. About 44.1 per cent of the population is under 15 years, 53.5 per cent between 15 and 64 years while 2.5 per cent is above 64 years of age. Around 50.6 per cent of the population is female and 49.4 per cent male. It is estimated that women who are in the reproductive age are around 22 million of which about 16 million live in Java and Madura.

5. The mobility in general is low in Indonesia. This conclusion is derived from the transmigration programme during the last three decades. Most of the people feel that there is a 'magic' relationship between the people and the soil where they live. No one can change the will of God. Backwardness and wrong beliefs are among the factors affecting the low mobility of the people.

6. Indonesian women enjoy equal status and rights with the men in all aspects. In practice, especially in the rural areas, the decision-makers are always men.

Innovative experiences

As a part of the overall development programmes, the Government has a comprehensive project to tackle the population problems. The project is known as 'Population Project 300 IND' funded jointly by IBRD, UNFPA and the Indonesian Government. Population education is one of the components of this bigger project and jointly run by the National Family Planning Co-ordinating Board (BKKBN) and the Department of Education and Culture.

Based on the Presidential Decree No. 33/72, the National Family Planning Co-ordinating Board has to co-ordinate all population activities, including population education. The Department of Education and Culture however has the responsibility of giving technical backstopping for the implementing unit of the Department.

Along with the development of population education programme, the Department of Education and Culture was engaged in developing a new curriculum for schools. A policy decision was taken whereby population education should be integrated to all relevant field of studies and subjects from the primary schools up to secondary schools as well as teacher training institutes. So population education becomes an integral part of the existing educational system.

Curriculum materials such as teachers' guides, textual materials were developed and 27,000 teachers from all levels were trained. The curriculum and materials development were based on population issues and problems encountered by the Indonesian people in particular and the world in general. They were grouped into four major areas: Basic concept of

demography, population growth and economic development, population growth and social-cultural-religious development and population growth and ecological harmony.

At present there are 17 Family Planning Development Units which have population education programmes either for the in-school or for the out-of-school programmes or both. Since they are still in the infancy stage, they need some collaboration and technical backstopping from the project and financial assistance from the National Family Planning Co-ordinating Board. Most of the materials that have been used and produced by the project are also used by those units with slight modifications to meet their respective needs.

Since population education is a new programme, it still needs skilled and experienced personnel at the Central Office as well as at the provincial and school levels. At this stage of institutionalization process where various agencies are participating, the need for trained personnel becomes more and more urgent.

Efforts have been co-operatively conducted with the project in developing sample learning units, national source book and in conducting a national case study. These kinds of activities need to be conducted regularly to ensure quality of materials produced.

Surveys and researches in various disciplines need to be carried out to collect data to determine the interrelationship between population change and socio-economic, cultural and political aspects and environment.

The possibility of using broadcasting (radio and television) will continuously be researched, both to train teachers and to give knowledge in population education to the intended audiences in the villages. For the coming five years, the use of the broadcast media will be intensified. Modularized materials are used for training purposes, especially for primary school teachers.

MALAYSIA

Population situation

Malaysia's population is estimated at 12,961,209 in 1976, with 10,917,550 in Peninsular Malaysia, 816,642 in Sabah and 1,227,011 in Sarawak. The population on the whole is estimated to be growing at a rate of 2.6 per cent annually, while the population in Peninsular Malaysia is growing at a rate of 2.5 per cent annually.

Population characteristics

The age structure of the population indicates its extreme youthfulness. About 42 per cent of the population is in the age-group 0-14 years. The population in the working age-group 15-64 years is 54 per cent with only 4 per cent of the population in the 65 years and above age-group.

As a result of fertility declines, some shifts in the age composition of the population are to be expected. In Peninsular Malaysia the 0-14 age-group is expected to decline from 41.4 per cent of the total population in 1975 to 39.2 per cent by 1980. The population in the age-group 15-64 years is expected to increase from 54.9 per cent to 57.1 per cent.

In Sabah and Sarawak, the proportion of youths in the 10-14 age-group will decline while the proportion in the 15-64 age-group is expected to increase from 51.7 per cent to 53.2 per cent in Sabah and from 51.2 per cent to 53.4 per cent in Sarawak.

Married women between 15-49 years in Peninsular Malaysia were estimated to be 1.5 million in 1978 (14 per cent of the population). About 33.9 per cent of the population in Peninsular Malaysia is located in the urban areas and about 66.1 per cent in the rural areas. It is envisaged that by 1980, the urban population will increase to 35.1 per cent cent and annual growth rate to 4.6 per cent of which one-half is likely to be the result of rural-urban migration. By 1990, the urban population is expected to increase further up to 42.1 per cent of the total population. The population density per square mile in 1978 was about 215 as compared to 124 in 1957. In the case of Sabah and Sarawak, the population density per square mile was 28 and 25 respectively.

Innovative experiences in population education

The in-school programme

a) Awareness and orientation. Awareness of the implications of a high rate of population growth in the social, economic and health of the nation was felt in the 1960s. National workshops and study tours were organized to

acquaint educators with various population issues and programmes. Through these activities it was realized that there was a need to set up a population education programme in schools.

b) Programme development and implementation of population education programme. Population education is seen and studied as part of other areas of educational concern. In this respect it is essential that all opportunities be taken to work with syllabus review committees. Members of the project team serve on the committees to facilitate the task of integrating suitable population education concepts into the new syllabus. The syllabus revisions have provided opportunities for a proper integration of population education concepts so that they become integral parts of the syllabus.

The main subjects considered relevant for the introduction of population education are civics, history, geography, science, health education and home science. The levels selected are from Standard 4 in the primary to Form 3 in the secondary (grades IV to IX). Upper secondary levels would also be involved where necessary.

Two strategies are adopted for this purpose: infusion and integration. Infusion is described as the substitution of examples into already existing topics to illustrate a point, or a new approach is used in the teaching of the related topics. The strategy is adopted for syllabus of subjects that are not expected to be revised in the near future.

Integration on the other hand is the incorporation of population education topics into the new syllabus. Whenever a syllabus comes up for review population concepts are integrated wherever relevant into the new syllabus.

c) Curriculum and materials development

(1) Scope and content of population education: Quite unlike the existing school subjects the knowledge base for population education has not been specified. There was a need to develop the overall scope of content of the subject so that the elements of population education in the various disciplines could be viewed within this perspective. This was a challenging task since the overall Malaysian school curriculum was itself in the process of being given a Malaysian outlook.

(2) Writing of textbooks: To ensure that population education is infused into the textbooks, seminars are held for textbook writers from all the publishing companies in Malaysia. To date the integration of population education in modern mathematics and science textbooks have been accomplished. The CDC has also established a communication link whereby these publishers can communicate direct with the project as follow-up of the initial contact to ensure that appropriate changes in textbooks are made.

(3) Development of teachers' guides: As each new syllabus is ready for implementation CDC staff has the main responsibility of preparing teachers' guides in accordance with the need of the revised syllabus. This means that the project team needs to work in close collaboration with the members of other curriculum units so that they are informed and able to keep pace with the units' developments and the preparation of the materials must be in line with the overall materials presentation of the mother unit.

(4) Development of support materials: The project also regards the provision of support materials as extremely important for teachers to enable them to teach population education effectively. Since these materials are expensive to produce, only materials on important issues and which have wider application are planned and developed.

(5) Development of source books: In view of the shortage of suitable reference materials, the project is also embarking on the production of reference materials with a Malaysian orientation. This scheme is contracted to several specialists from the local universities. The topics and outline of these are collectively identified by the project team and the lecturers to ensure comprehensive coverage as well as to avoid unnecessary duplication. One of the volumes *Population and Food Supply in Malaysia in Perspective* has been produced.

d) Training of teachers. The project has formulated and developed a totally new strategy for the training of teachers. This strategy relies on the use of self-learning materials (SLEM) not only to provide teachers with the relevant knowledge and information but also to orientate them to the desired attitudes and values. While the content of each module is complete in itself, the content of the package as a whole is interrelated and sequenced.

At the same time the programme does not totally do away with the need for a face-to-face interaction. Thus in addition to the modules teachers will also be required to attend a school-based training where they are provided with the opportunity to discuss the module content and related issues with their colleagues and headed by the headmaster of the school. A self-instructional management module is prepared to enable heads of schools to carry out this task. This strategy takes care of both the logistical problem normally involved in the conventional in-service training of a large number of teachers as well as the uncertain effectiveness of such training using several intermediaries. It is also envisaged that the programme will be used for orientating pre-service teachers in training institutions.

e) Research and evaluation. The programme is still at the formative stage. The need to carry out a systematic evaluation is duly recognized. Currently its teacher orientation programme is being tried out for the purpose of assessing the feasibility and effectiveness of various aspects of the programme.

f) Co-ordination with different agencies/departments. In view of the strategy used for incorporation of the programme into the school curriculum, the project sees the need for co-ordination with other agencies as crucial for its proper development and successful implementation and it is being done as reflected below:

(1) Formulation and planning stage - divisions of the Ministry of Education and the National Family Planning Board.

(2) Development of curriculum materials: co-ordination with other curriculum units where population education elements can be incorporated.

(3) Implementation and evaluation: co-ordination with other divisions of the Ministry of Education and State Education Departments that take up the role of implementation and evaluation.

g) The administrative structure. The population education project functions as one of the curriculum units within the organization of the Curriculum Development Centre, Ministry of Education.

The out-of-school population programmes. As a sequel to the in-school population education, population awareness in the out-of-school sector is incorporated within the national family programmes. The I.E.C. component of the National Family Planning Board (NFPB) is the main agency which carries out these activities, while several other development agencies also participate - to reach the varied adult audiences. Population education is incorporated in their respective development programmes and are co-ordinated by the NFPB.

NEPAL

Population situation and characteristics

Nepal, being one of the developing countries, is no less free from the danger of population problem than many of the other developing countries. The census of 1971 shows that the population growth rate in Nepal is 2.07 per cent per annum and the mid-term Demographic Sample Survey of 1974-1975 has revealed an annual growth rate of 2.05 per cent. The population of Nepal will double within about 28 years, if the present rate of growth continues. The fundamental cause of the growth of population in Nepal can be attributed almost entirely to natural increase i.e., the difference between birth and death rates. The present problem of Nepal is to maintain a reasonable balance between the crude birth and death rates which are presently operating in the opposite directions.

The average density of population in Nepal is 598 persons per square kilometre. The city and terai areas are facing more crucial population pressure because of internal migration. So not only is the growth itself a problem, but so is distribution.

About 40 per cent of Nepal's population is below the age of 15 which is considered economically inactive population. The average life expectancy in Nepal has risen from 42 to 46 during the last decade which is comparatively shorter than most of its Asian neighbours.

The average family size of a Nepalese constitutes 5.4 members (including parents).

In Nepal, 94 per cent of the population depends upon agriculture and 96 per cent resides in rural areas. The practice of early marriage is common in the rural areas though the law has fixed age of marriage at 18 for girls and 21 for boys.

Innovative experiences in population education

In order to check the rapidly growing population, the Family Planning Association of Nepal was inaugurated in 1959. Similarly in 1966, His Majesty's Government launched a new programme, the Family Planning and Maternal Child Health Project. However, the Nepalese social structure, based on rigid traditional values, has been a bottleneck to the successful implementation of family planning measures.

In recognition of the population issue, His Majesty's Government of Nepal recently established a National Commission on Population with some promising objectives, such as formulating appropriate population policies, studying the dynamics of population education, facilitating co-ordination among concerned institutions, providing training, acting as a clearing house and participating in the implementation of policies. However, the whole network of the Commission has not yet been set up. At

the moment we can only hope that its future course of action will be commensurate with its objective.

On the other hand, in the past a few national-level meetings and seminars relating to population education have been held to explore its potential possibilities and the contributions it could make to the nation's development.

Formal education

With a view to introducing the concept of population education and making young people feel that the alarming population problem is in part their responsibility, some topics related to population education are included in various lower-secondary and secondary-school level subjects, such as social studies, geography and health. The country has not introduced population education at the university level. Nepal is considering the possibility of introducing population education as a separate course at both school and university levels because it tends to be diffused and lost when integrated with other disciplines.

Non-formal education

At present it is estimated that about 80 per cent of the population of Nepal is illiterate. Under such circumstances, non-formal approaches could play a significant role in making people aware of population dynamics.

In Nepal, various development agencies like the Labour Department, the Family Planning and Maternal Child Health Project, the Family Planning Association of Nepal, the Women's Organization, the Women's Affairs Training Centre, the National Development Service, the Department of Health, the Ministry of Agriculture, the functional adult literacy programme under the Ministry of Education and Youth Organization have included population messages of one kind or another. It needs to be emphasized that co-ordination on the part of all the development agencies is highly desirable.

A comprehensive and vigorous integrated approach could be most fruitful in two ways, first to develop desirable behaviours and attitude with respect to population related matters and second to develop knowledge and skills to improve the quality of rural life. One programme which has attempted to reach the rural people with a multi-dimensional and integrated approach is the 'Integrated Non-formal Education Project'. The Integrated Rural Development Project and Integrated Rural Health Project are also noteworthy in this regard.

Conclusion

Much has yet to be done in curriculum and materials development, training of personnel, research and evaluation, co-ordination with different agencies and administrative organization, all of which are

important for the success of any programme. In Nepal, however, hardly any of these activities have been undertaken for the purpose of designing and implementing a population education programme.

Population education is a relatively new innovation in the field of education. In Nepal, population education is still at the initial stage.

However, Nepal recognizes that any activity that is directed at checking the existing fertility rate will remain ineffective in the absence of population education.

PAPUA NEW GUINEA

Population situation and characteristics

Papua New Guinea's population in 1971 was 2.4 million. It is now estimated to be 2.9 million, or nearly 3 million.

Papua New Guinea's population is very unevenly distributed, with 40 per cent of its people living on 14 per cent of its land area in five rugged highland provinces.

Population densities also vary greatly from 300 per square kilometre in some high land areas to as few as one person for every 2 square kilometres in the swampy Western Province.

Although Papua New Guinea has a large land area of over 400,000 square kilometres only one quarter of that land is suitable for agriculture.

Papua New Guinea has a high population growth rate of 3 per cent annually and this is expected to increase in the 1980s. At this rate of growth, Papua New Guinea's population is expected to nearly double in the next 25 years (1971 to 1996) to 5.25 million.

Papua New Guinea's population is 85 per cent rural.

The phenomenon of rural-urban migration has reached Papua New Guinea and the two main towns are growing at a rate of 8 per cent per year. By 1990, 25 per cent of the population will be urbanized.

Papua New Guinea's birth rate is 44 per 1,000 and the death rate 14 per 1,000. The fertility rate is high at 7.1 live births per woman. Infant mortality is 135 per 1,000.

Forty-seven per cent of Papua New Guinea's population is aged under 14 years. Last year only 56 per cent of these children could find places in primary schools and 16 per cent in secondary schools.

Innovative experiences in population education

In-school population education

a) Awareness and orientation

(1) to make students know that they can choose the size of their families;

(2) to develop responsible behaviour and attitudes about population growth for the welfare of the family, community and nation;

(3) to be aware of some of the problems caused by rapid population growth.

b) Programme development and implementation - responsibility of the Department of Education in conjunction with the Office of Environment and Conservation.

c) Curriculum and materials development - formally incorporated into grades II to VI of the Community Life syllabus, but only eight lessons per year; also in grade VI Health, grade X Science (Growth and Reproduction and Ecology) grade XII Science.

d) Training of teachers - innovative approaches and detailed lesson plans are needed.

e) Research and evaluation - innovative structures and approaches are needed.

f) Co-ordination with different agencies as the programme is more developed.

g) Administrative organization - in a relatively small bureaucracy this occurs quite successfully between the Departments of Education, Health, Home Affairs, and the Office of Environment.

Out-of-school population education

a) Awareness and orientation

'Population Awareness Campaign' consists of:

(1) Provincial workshops - to create an awareness amongst national provincial politicians of the detrimental effects of rapid population growth on development.

(2) Full-length feature film depicting contemporary population - related problems such as maternal death, urban migration, urban crime, land shortage and resettlement.

(3) Production of radio programme including 'real-life' interviews, short situation dramas, commercials and songs.

(4) Provincial rural village tours by the National Theatre Company performing population/family planning plays.

b) Programme development and implementation. This involved liaising with 19 Provincial Governments and national and Provincial Departments of Health, Education, Agriculture, Information and Home Affairs to develop provincial education and motivation programmes. We first have to convince national and provincial politicians of the detrimental effects on development so that they will support a family planning programme. Distribution and supply lines of contraceptives to all those who want them need to be assured.

c) Curriculum and materials development. Posters, booklets and pamphlets are produced in the two main languages, Pidgin and Moutu, despite 700 language and cultural groupings. When the programme becomes well established, community groups should be helped to produce their own materials.

d) Training of personnel. There is a great need for this in Papua New Guinea. Family health educators will approach the subject from maternal and child health, nutrition and family planning. Four trained regional population educators are needed. Extension workers have their own priorities.

e) Research and evaluation. It is in this area also that Papua New Guinea lacks the expertise and personnel to adequately assess and possibly redirect the population education programme.

f) Administrative organization and co-ordination with different agencies. Again in a relatively small bureaucracy, these occur quite well with the Office of Environment and Conservation acting as the Co-ordinating Department.

PHILIPPINES

Population characteristics and situation

The population of the Philippines which was reported at 36,684,486 in 1970 increased to 42,070,660 in the 1975 census. This was in spite of a decline in growth rate from 3.01 per cent in 1970 to 2.79 per cent in 1975. The average family size also showed a decrease from six to seven children per family to 5.6.

The population of the Philippines is unevenly distributed. The city of Manila is the most densely populated urban centre with 7,646 persons per square kilometre, although the overall average density is 140.2 persons per square kilometre. However, the Philippines as a whole is still largely rural with 67.3 per cent of the population still living in rural areas.

The country has a young population; about 43 per cent are under 15 years of age with a dependency ratio of 94 dependents for every 100 persons of working age in 1970. The average life-expectancy at birth is 58 years which is higher than in previous years.

Awareness and orientation

The Population Education Programme (PEP) was established in the Department of Education, now the Ministry of Education and Culture, in 1972. To build up support for the programme, a Population Education Council was convened as advisory body to the PEP, which consisted of 14 agencies involved in population activities and family planning. Multi-sectoral orientation seminars were conducted and press releases as well as executive orders were issued to acquaint the public and the educational hierarchy of the objectives, nature and activities of the PEP.

Administrative organization

A separate unit was set up to take charge of the programme in the office of the Secretary (now Minister) who was the concurrent Project Director thus giving national status to the programme as well as facilitating its implementation.

Curriculum and materials development

The curriculum component which was a multi-disciplinary group consisting of curriculum writers, administrators as well as teachers did the novel task of identifying the main ideas and facts from the context of population education. A scope and sequence organized around four major areas, i.e., demography, determinants of population growth, consequences of population growth and planning for the future, was developed from which was drawn the content that could be integrated in five subject areas, namely, social studies, health education, science,

home economics and mathematics. Sub-units in population education were prepared to enrich existing units in the course guides of the said subjects from grade I in the elementary level to fourth year in the high school.

The conceptual approach was used in organizing the content of the lessons and the objectives were stated in behavioural terms. As population is value-laden, the discovery and the values clarification approaches were made use of, as well as a variety of strategies with elements of inquiry, such as brainstorming, role-playing, buzz sessions and debates.

Certain aspects of human sexuality and reproduction which are relevant to population education were included and taken up where age and maturity of the pupils make it appropriate. An elective course entitled 'Population for Better Family Living' has been prepared for the secondary level. Population education is now taught either as a required subject, an elective course or integrated in the Social Sciences in Teacher Education and in the Arts and Sciences.

To adapt the guides to the needs, conditions and culture of the Muslim Filipinos, two curriculum workshops were held for them.

Numerous materials have been prepared in the form of teaching guides, pupils references, self-learning units, a handbook, a resource book as well as wall charts.

Training strategies

Three modalities have been used to train administrators, principals and teachers, namely, training by supervisory training teams (STTs) who were trained by PEP staff, training by middle-level trainers who were trained by the STTs and training through modules. A trainer's manual was developed to ensure quality control in the massive training programme for teachers. The self-instructional modules approximate the content of the one-week training course contained in the trainers' manual.

Four population education regional centres were established in teacher training institutions in accordance with the regionalization thrust of the Government.

To maximize the implementation of the programme in private schools a series of consultative conference, with administrators of private schools in the three levels were held.

Research and evaluation

Several research and evaluation activities were undertaken by the Research Section such as:

1. An Analysis of the Population Content of Current Textbooks in Philippines Public and Elementary and Secondary Schools.

2. Study on the Reactions of Parents, Teachers, Laymen and other Segments of Society Towards Certain 'Potentially' Controversial Population Education Content.

3. How Filipino Children Develop Concept of Family Size.

4. Family-size Preferences of Filipino Adolescents: An Exploratory Survey.

5. Research Utilization on Population Education.

6. Experiment on Non-formal Population Education in the Tertiary Level.

Co-ordination with different agencies

Under the umbrella provided by the national co-ordinating body, the Commission on Population, the PEP has linkages with other governmental and non-governmental agencies engaged in population and family planning activities. It also co-ordinates with the other officers within the MEC.

Out-of-school population education

Supportive of its national educational aims the Ministry of Education and Culture has engaged in adult and community education for the out-of-school. Part of the functional literacy and citizenship training programmes consists of concepts in population education, responsible parenthood and family planning. The newly established Office for Non-formal Education in the Ministry now co-ordinates and supervises programmes, projects and activities on non-formal population education activities.

Besides the Office for Non-formal Education of the MEC over 20 agencies are undertaking population education activities in their programmes. The specific objectives for population activities are tailored to suit the main objectives of these organizations which are primarily engaged in community development, human resource development, family life improvement and socio-economic improvement.

Among others, the agencies engaged in out-of-school population education activities are the following:

1. Bureau of Youth Welfare of the Ministry of Social Services and Development is implementing a Population Awareness and Sex Education (PASE) Programme for Out-of-School Youths 13 to 24 years old.

2. The Ministry of Labour has a Population Education Project for organized labour.
3. Philippine Rural Reconstruction Movement.
4. Family Planning Organization of the Philippines.
5. Foundation for Youth Development of the Philippines.
6. Bureau of Agricultural Extension.
7. National Manpower and Youth Council.
8. Rizal Youth Development Foundation.
9. Philippines Christian Churches.
10. Institute of Mass Communications, U.P.
11. Ministry of Agrarian Reform.
12. National Media Production Centre.

REPUBLIC OF KOREA

Population situation

With a population of approximately 37 million, the Republic of Korea is one of the most densely populated countries with 365 people per square kilometre. The annual growth rate was 2.8 per cent in 1961 and with strong government support for family planning programme since 1962 it has been reduced to 1.6 per cent in 1978. The target of the government is to reduce the annual rate of growth to 1.5 per cent by 1981.

Population characteristics

In 1976, 38.3 per cent of the population was under 15 years of age, 58.2 per cent was in the age groups 15-64, and 3.5 per cent was in age group 65 and over. Life expectancy at birth increased to 66 for males and 68 for females.

Males slightly outnumber females, the overall sex ratio being 101.5 in 1976. During recent years a rapid change has taken place in the pattern of marriage. In 1955, 75 per cent of women aged 20-28 were married, while in 1975, only 37 per cent of women in that age group were married. The mean age at marriage was in 1976, 27 for males and 23 for females.

Educational opportunities were expanded very rapidly. Total enrolment in formal schools is 10.6 million as of April 1979. Almost all children of primary school age (6-11) are in school and approximately 90 per cent of primary school graduates proceed to middle school. About 85 per cent of middle school graduates go to high school, and over 35 per cent of high school graduates proceed to colleges and universities including junior colleges.

The country has population problem in rapid growth as well as concentration of population in urban areas, particularly to the capital city, Seoul, having nearly 20 per cent of total population. The population is projected to grow to 42,251,000 by 1991.

Innovative experiences in population education

In-school education

a) Awareness and orientation

(1) A short-term orientation programme for administrators, supervisors and principals was conducted to help them create better school climate for population education when it is introduced by classroom teachers in their respective schools.

(2) Observation tours in country as well as abroad for officials in key-post for implementation of population education were provided also to enable them to provide better leadership.

(3) In order to promote population education activities, various academic societies in education were invited for participation to population education programmes and several symposiums were held by those societies.

b) Programme development and implementation

(1) From planning stage representatives of all agencies and departments concerned with population education were invited. A task force to draft population education project plan was formed to work with the committee consisting of those different agencies. This initial involvement helped obtain support in the later implementation of the project.

(2) Utilization of existing mechanism for implementation of the project components was encouraged whenever and wherever possible, e.g., in-service training by teachers' colleges, research and curriculum development by existing research organizations.

(3) Institutional autonomy, especially at the tertiary level, was very essential for the success of the programme.

c) Curriculum and material development

(1) Pupil participation was encouraged. Pupil workbooks included personal responses which enabled them to overcome passivity in discussions.

(2) Applying the three strategies; namely, separate course, unit approach, and infusion, different strategies were selected according to the school-level and nature of the subject. For example, for lower grades the infusion method was used, for secondary grades a unit approach was adopted and at the tertiary level more separate courses were adopted.

(3) Interdisciplinary team teaching methods were used in college programmes.

(4) Multimedia such as printed materials, films, slides, charts, audio tapes were developed and utilized in teaching.

(5) In developmental process experts outside of school were invited including experts in health, economics, sociology, environment, etc. The information materials developed by family planning programme were used also as resource materials.

d) Training of teachers

(1) Teaching programme and materials were developed in collaboration with teacher trainers representing teacher training institutions responsible for conducting in-service training. Resource persons (teacher trainers) were trained before conducting the training, through seminars and workshops.

(2) Existing in-service training mechanisms were fully utilized in all aspects of training including administrators, supervisors and principals and teachers.

(3) In order to broaden the understanding of problems of population growth, orientation programme of three hours was instituted in every in-service training programme conducted by the teacher training colleges.

(4) Teachers responsible for social studies, home economics, physical education and biology were given in-service training on population education, as these subjects were selected as strategic subjects.

e) Research and evaluation. In the earlier stage of the project, it was mandatory to get basic data on the knowledge and attitudes of teachers, pupils and parents in order to develop relevant materials.

In developing curriculum materials both formative and summative evaluations were included. For evaluation of fertility behaviour we must wait for several more years until students get married.

f) Co-ordination with different agencies/departments.

(1) Population education is a part of total population activities of the country, therefore it was inevitable to implement the programme in co-operation with other organizations such as the Korean Institute of Family Planning, Planned Parenthood of Federation of Korea, Korean Development Institute and various research institutes and local government authorities.

(2) Such co-ordination is done through exchange of materials and information, inviting experts to the meeting sharing facilities available and inviting them to serve as lecturer to the training programmes.

(3) A core of leading faculty members served as advisers to help institutionalize population education in local universities and the school system.

(4) Co-ordination meetings of teacher training colleges participating in population education were often held under the guidance of the Central Office for Population Programme.

g) Administrative organization. Since development of population education requires the services of several bureaus in the Ministry of Education such as in curriculum development, teacher education, higher education, social education, etc., the establishment of separate body to co-ordinate the programme directly under the Vice-Minister of Education was deemed to be one of the imperatives.

The Central Office for Population Education Programme chaired by the Vice-Minister of Education is staffed with the Chief Executive Director, Co-ordinator, researchers and a few administrative support staff. By this way, implementation of the programme was facilitated.

Out-of-school population education

a) Out-of-school population education is mostly handled by the governmental and non-governmental organizations in co-operation with Family Planning Programme under the title of I.E.C. activities.

b) The programme developed by the Korean Population Education Project apart from I.E.C. activities of the Family Planning Programme was primarily designed for parents of the school leavers in remote areas.

c) The content of the programme as well as the managerial practices of the adult education organizations were carefully studied with a view to ascertaining the kind of curriculum and instructional materials that might be relevant to the target audience.

d) The instructional materials provided consisted of printed booklets, slides, audio-taped dramas, printed cartoon stories and evaluation forms. Implementation of the programme is made through parent-teachers association, adult education classes attached to schools, especially in remote areas where such family planning information is lacking and where teachers have stronger impact on community development.

e) I.E.C. programmes are carried out also in co-operation with Saemaul Movement (New Community Development) programmes throughout the country.

SRI LANKA

Population situation and characteristics

Sri Lanka has a land area of 25,332 square miles (66,608 square kilometres). The population is estimated to be 14.5 million, which makes the population density exceed 550 per square mile. Sri Lanka has a 2500 year-long national and cultural identity, and a continuous written history going back to the foundation of the nation in the sixth century BC by colonists from North India. That the old civilization supported a large population is evident from the vast irrigation works undertaken, and by the fact that Sri Lanka has no primary forests except in the central highlands; all the land having been cultivated at some time or another. Owing to invasions from South India and the 300 years of war with the Portuguese and the Dutch, population declined. However, from the time of the first decennial census in 1871 a gradual increase of population is evident. In the year 1946-1947 the mortality rate fell from 20.3 to 14.3. Following this, the growth rate rose up to 2.8 per cent in the 1950s. The growth rate has been declining since then and the current rate is only 1.6 per cent (the natural increase being about 2 per cent).

In the periods for which statistics are available, Sri Lanka never had very high birth rates but the high natural increase was due to low death rates. The decrease in birth rate to the 1976 level of 27.6 has been mainly attributed to the increase in the general level of education and allied factors such as late marriage. However, a slight increase is evident in the last two years (birth rate 28) and death rate has declined from 8.0 in 1976 to 6.8 in 1978. Apparently the service needs of population family size limitation lags behind the awareness and demand levels in Sri Lanka. The World Fertility Survey of 1975 revealed that the average number of children desired was only 2.4 although the average number of children per family was 3.9. Hence population education in Sri Lanka especially at the school level has to be a broad based one with emphasis on factors such as efficient resource utilization for the improvement of the quality of life.

Demographic data

Population 1971 census	12,689,897	
1976 estimate	13,730,000	
Density of population	1971	- 508 per square mile
	1976	- 549 per square mile
Urban population	1971 census	- 22.4 per cent
Literacy	1971 census	- 85.6 per cent
Birth rate	1976 estimate	- 27.6
Gross reproduction rate	1973 estimate	- 1.3
Death rate	1976 estimate	- 8.0

Infant mortality	1976 estimate -	45.0	
Maternal mortality	1976 estimate -	1.0	
Natural increase	1976 estimate -	1.96	per cent
Annual growth rate	1976 estimate -	1.6	per cent
Expectation of life at birth	1970-1972 Male	64.2	
	Female	67.0	

Population education

In-school project. Population education components were introduced to the junior secondary stage (grades VI-IX) in stages from 1974 following the institution of the Population Education In-School Project, at the Curriculum Development Centre of the Ministry of Education in July 1973. When the Population Education Project was initiated a major curriculum reform was under way beginning with grade VI in 1972. Because the new course guides were already in schools, population content was introduced through supplementary course guides. The method chosen was one of infusion where population components were introduced into the syllabi of the first language, mathematics, integrated science, health science and social studies, subjects already being taught in the junior secondary stage.

The characteristics of the subject were utilized for the introduction of the various aspects of population education components. Mathematics was utilized for the introduction of quantitative aspects while First Language lent itself for discussion of broad aspects involving an effective thrust. Science and health science lent themselves for the discussion of topics such as pollution.

In addition to course guides, a comprehensive reference book for teachers and a National Source Book on Population Education were produced by the project staff. As a preliminary to the in-service training of teachers in about 7,000 schools the 'master teachers' were given a comprehensive training in 1974. The master teachers are selected teachers working in the different education districts through whom all the school teachers teaching subjects such as science could be reached for in-service purposes.

Towards the end of 1977 when the Population Education Programme reached grade IX as per plan, there was a syllabus and school structure change. The junior secondary stage was extended by another year to grade X. The new syllabi were introduced in 1979 at grades VI and IX. Following the stabilization of these reforms a new project staff of seven Programme Officers and a Director were appointed in September 1979 to undertake the introduction of population education components on a permanent basis. This project staff will handle the junior secondary work as well as that under the projected extensions to grades XI and XII and to the primary grades IV and V.

Out-of-school population education programme. Out-of-school population education is handled by the Ministries of Health, Labour and Information Broadcasting. The Ministry of Health has introduced population education into the basic training programmes of nurses, midwives and public health inspectors. There are the key personnel involved in imparting the population education to the masses. Also in-service training on population education is done for all categories of personnel of Health Ministry. From each Health Division a group of officers are trained as trainers and they implement the population education programmes in the divisions.

The Ministry of Labour under the worker education programme has carried out population education and motivational programmes in the plantation sector and in the organized labour sectors.

The Ministry of Information Broadcasting has introduced population education through its productions, posters, pamphlets, booklets and radio programmes.

Before training programmes were launched by the different ministries, curricula were prepared by advisory bodies which comprised of persons from different disciplines. Training programmes were carried out by the different ministries in a phased manner in all parts of the country.

The Family Health Bureau of the Ministry of Health is actively involved in the planning and implementation of all training programmes in family health education in the country. The Ministry of Plan Implementation co-ordinates the activities of all ministries actively involved in population activities. Voluntary organizations such as the Family Planning Association co-ordinates with the other ministries in carrying out population education programmes in the country.

Population education components have not been introduced on a regular basis into the considerable non-formal education progrmmes for out-of-school youths and adults, organized by the Ministry of Education.

THAILAND

Population situation and characteristics

Thailand has a total area of 513,113 square kilometres with a population of 45.2 million, of which 22.7 million are males and 22.5 million are females. Population density is 88 persons per square kilometre. Fertility rate is 21.2 per cent with birth rate at 24.6 per cent and mortality rate is 0.52 per cent. Life expectation in 1975 was estimated at 58 years for male and 63 for female. About 65 per cent of population are fully engaged in agricultural activities and 81.8 per cent of the population lives in the rural area. Primary compulsory education is enforced for all children of the age group of 6 or 8 to 15 years. Literacy rate in 1977 was 81.5 per cent.

Status of population education

Population education was not formally introduced into the school system until 1972. Nevertheless, it is the Ministry of Public Health that organized family planning quite some time ago. As for population studies and population education, the pioneers were the Institute of Population Studies of Chulalongkorn University and Mahidol University, respectively. Some population education components are taught in schools in social studies, biology, health education and home economics in the formal school system. As for the non-formal programme, population education was integrated in the four organized topics of the Functional Literacy Programme namely, earning a living, health and family life education; family economics; and civic responsibility.

The Thai Government realizing the population problems formulated a population policy in 1970, supportive of voluntary family planning activities. In 1976, through a recommendation proposed by the Executive Committee on Population Education (ECPE), the Government issued a population education policy stating, among other things, that it encouraged the development and implementation of both in-school and out-of-school population education programmes in order to develop a sense of responsibility and competent decision-making ability among Thai citizens which will lead to effective problem-solving behaviour and action.

Population education received its pace of significance for national development when its activities were included in the Fourth National Economic and Social Development Plan (1977-1981) and it would be continued further in the fifth one (1982-1986). In addition it was recommended by the National Economic and Social Development Board (NESDB) to elevate the ECPE to a national-level status - National Executive Committee on Population Education (NECPE). That means NECPE will be the highest committee on population education which is responsible for national policy formulation and decision making as well as in co-ordinating all population education activities conducted by both government and non-government agencies.

Innovative experiences in population education

In-school population education

a) Awareness and orientation. Population education was systematically introduced into the in-school programme in 1972 through various meetings, seminars, workshops and in-service training programmes. In 1975, a master plan for in-school and out-of-school population programmes was formulated and implemented. Consequently, the activities concerning population education have been effectively and collectively carried out by both government and voluntary organizations.

b) Programme development and implementation of population education programme. The Population Education Unit of the Curriculum Development Centre plays the role of co-ordinator in most of the programme development and implementation except on teaching-learning activities at the school level. The responsible departments exercising authority over the schools of various levels sometimes co-ordinate with the Population Education Unit but at times they directly administer the matters under their responsibilities.

c) Curriculum and materials development. In 1975, population education was formally included in social studies, general science, biology and home economics in the senior secondary school. In 1977, social studies syllabus at all levels including teacher training were revised and population education was incorporated. The present primary syllabus incorporates population education in life experience and other related topics at the primary level. Social studies, general science, home economics and health education are the subjects which include population education in the appropriate and relevant topics or units at the junior secondary school level.

d) Training of personnel. In-service training programmes designed for teachers are mainly organized by the departments which administer the school. Mahidol University and the Department of Educational Techniques, with the Curriculum Development Centre under its wing, jointly train population education trainers. Seminars, meetings and workshops have been organized to orient the educational administrators and supervisors to familiarize themselves about population education.

e) Research and evaluation. The Institute of Population Studies of Chulalongkorn University and Mahidol University conduct field research regarding demography and population education, respectively. The Curriculum Development Centre of the Department of Educational Techniques, Ministry of Education also conducts surveys, evaluation and action researches on population education with emphasis on curriculum utilization and method of instruction.

f) Co-ordination with different agencies/departments. Each department controlling schools can contact other agencies on bilateral and/or inter-institution basis. In general, it is the Population Education Unit which co-ordinates both in country and international agencies for schools and various departments.

g) Administrative organization. Schools are under the General Education Department which administers model primary schools, all secondary schools and special schools, whereas all vocational institutions are under the Department of Vocational Education. Curriculum and materials development as well as technical assistance are the responsibilities of the Population Education Unit. With regard to policy formulation, decision-making and co-ordination of population education activities, these are the responsibilities of ECPE as mentioned earlier.

Out-of-school population education. Out-of-school population education is carried out by many agencies, governmental as well as non-governmental. For example, Ministry of Education, Ministry of Agriculture and Co-operatives, Ministry of Public Health, Public Relations Department and so on. The report here will be confined to the activities of the Department of Non-formal Education of the Ministry of Education.

a) Awareness and orientation. The Department of Non-formal Education produces a fortnightly wall newspaper and radio broadcast programmes on population issues directed to the rural population and new literates. The audio-visual education units attached to provincial education offices also show films on population education in rural communities.

b) Programme development and implementation of population education programme. The population education programme is integrated into other non-formal education programmes, for example: the functional literacy programme, the general education equivalency programme and the vocational

training programme. However, the Non-formal Education Department has also developed a learning package on population education which can be used for interest groups who want to study this subject separately.

c) Curriculum and materials development. The Department of Non-formal Education has one division specially created to develop curriculum and materials. The Division of Non-formal Education Development produces curriculum and materials on population education for use in various programmes as mentioned above.

d) Training of personnel. The training of personnel is carried out by the Department's four (4) NFE Regional Centres and twenty-four (24) NFE Provincial Centres. The four NFE Regional Centres are responsible for the training of trainers, while the twenty-four Provincial Centres are responsible for the training of teachers and the out-of-school learners.

e) Research and evaluation. The Department of Non-formal Education has its own Research and Planning Division to carry out research and evaluation of various programmes of the Department. It also has four (4) NFE Regional Centres to do the research work.

f) Co-ordination with different agencies/departments. The Department seeks co-operation from different agencies in the preparation of curriculum and materials, for instance, the Ministry of Public Health and the Department of Educational Techniques. In the implementation stage, co-ordination is achieved through the National Committee on Non-formal Education and also the Provincial Committee on Non-formal Education. At the grass-roots level the NFE workers are encouraged to co-ordinate with other development workers in their areas.

PART THREE

ANNEXES

LIST OF ANNEXES

I. Agenda

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III. Schedule of Work

IV. List of Participants

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VI. Remarks and Speeches

Welcome Address at the Inaugural Function by Prof. Shib K. Mitra, Director, NCERT, New Delhi

Remarks at the Inaugural Function by Dr. Leonardo de la Cruz, Unesco, Bangkok

Introduction to the Workshop by Dr. R.C. Sharma, Unesco, Bangkok

Inaugural Address by Dr. J.D. Sethi, Member Planning Commission

Vote of Thanks at the Inaugural Function by Dr. T.N. Dhar, Joint Director, NCERT, New Delhi

ANNEX I

AGENDA

1. Opening of the Workshop

2. Election of officers of the Workshop

3. Review of country experiences in innovative structures and approaches in population education

4. Identification of alternative strategies for innovations in population education

5. Consideration and adoption of the report

ANNEX II

ANNOTATED AGENDA

1. Opening programme

2. Election of officers of the Workshop

The participants will elect a chairman, a vice-chairman and two rapporteurs. The secretariat of the Workshop will be provided by the Unesco Regional Office for Education in Asia and Oceania.

3. Review of country experiences in innovative structures and approaches in population education

The participants will present their country papers for discussion highlighting the following points:

a) Population situation

b) Population characteristics

c) Status of population education

d) Innovative structures and approaches to different aspects of population education programming such as awareness and orientation, curriculum and materials development, training of personnel, research and evaluation, clearing house services and administrative organization.

4. Identification of alternative strategies for innovations in population education

In the light of the review of country experiences, the participants will prepare *alternative* innovative structures and approaches necessary for an effective population education programme. The innovative structures and approaches may be prepared in different areas of programming such as:

a) Awareness and orientation of key personnel

b) Programme development

c) Curriculum development

d) Textbook and other materials development

e) Implementation of population education programme

f) Training of different teachers and other personnel

g) Evaluation of different components of the programme

h) Research

i) Co-ordination with different agencies/departments

j) Administrative organization - as a separate administrative organization or part of the existing structure of educational administration.

5. Consideration and adoption of the report

The deliberation of the Workshop will be put in a report which will be considered and adopted by the participants.

ANNEX III

SCHEDULE OF WORK

Tuesday, 23 October 1979	
0930 - 1030 hours	Registration
1030 - 1200 hours	Inauguration
1200 - 1330 hours	Lunch break
1330 - 1430 hours	Election of officers and finalization of schedule of work
1430 - 1730 hours	Review of country experiences
1730 hours	Steering Committee meeting
Wednesday, 24 October 1979	
0900 - 1300 hours	Review of country experiences (continued)
1300 - 1430 hours	Lunch break
1430 - 1700 hours	Review of country experiences (continued)
1700 hours	Steering Committee meeting
Thursday, 25 October 1979	
0900 - 1300 hours	Identification of alternative strategies for innovations in population education (Group work)
1300 - 1430 hours	Lunch break
1430 - 1700 hours	Group work (continued)
1700 hours	Steering Committee meeting
Friday, 26 October 1979	
0900 - 1300 hours	Group work (continued)
1300 - 1430 hours	Lunch break
1430 - 1530 hours	Group work (continued)
1530 - 1730 hours	Presentation of group reports

Saturday, 27 October 1979

0900 - 1300 hours	Preparation of draft report
1300 - 1430 hours	Lunch break
Afternoon	Free

Sunday, 28 October 1979

All day	Free

Monday, 29 October 1979

0930 - 1130 hours	Adoption of report
1200 - 1330 hours	Closing programme

ANNEX IV

LIST OF PARTICIPANTS

Afghanistan

Mr. Mohammed Yasin
Director-General, Primary Education Programmes
Ministry of Education, Kabul

Mr. Ghulam Ali Arya
Member of the Secretariat
Afghan National Commission for Unesco
Ministry of Education, Kabul

Mr. Mohammed Qayem
Director-General, Boys School
Ministry of Education, Kabul

Bangladesh

Mr. Anisur Rahman
Assistant Director, Population Education Programme
Ministry of Education House No. 149-A, Road No. 13/2
Dhanmondi R/A, Dacca-9

Mr. Abdul Mannan
Curriculum Development Officer, Population Project
Bangladesh Education Extension and Research Institute
Dhanmondi, Dacca-5

Fiji

Mr. I.S. Walia
Chief Education Officer (Secondary)
Ministry of Education, Suva

India

Mr. Anil Bordia
Joint Secretary, Ministry of Education
Government of India, New Delhi

Prof. B.S. Parakh
Head, Department of Education in Social Sciences and Humanities
National Council of Education Research and Training, New Delhi

Dr. P.L. Pareek
Director, Evaluation & Academic Programmes
Board of Secondary Education, Rajasthan, Ajmer

India (continued)

Mrs. Sarla Mukhi
Assistant Director, Population Education
Family Planning Association of India
Bajaj Bhavan, Nariman Point, Bombay-400021

Indonesia

Mr. Sans S. Hutabarat
Research Centre for Population Education (LPPK)
IKIP - Bandun 6

Mr. Sutardi Wirjohasmoro
Director, National Population Education Project
Directorate General of Primary and Secondary Education
Cipete Seletan, Jakarta

Malaysia

Mr. Mohd. Yusof bin Bakar
Assistant Director (Information, Education and Communication)
National Family Planning Board, Post Box 416, Kuala Lumpur

Miss Fatimah bt. Abu Bakar
Head, Population Education Unit
Curriculum Development Centre, Ministry of Education
Pesiaran Duta, Off Jalan Dua, Kuala Lumpur

Nepal

Mr. Nageswor Prasad Singh
District Education Officer, Sunsari, Inarwa
c/o Ministry of Education, Kaiser Mahal, Kathmandu

Mr. Krishna Bahadur
SOB, Centre for Educational Research
Innovation & Development, National Education Committee
Maharajganj, Kathmandu

Papua New Guinea

Mrs. Ruth Gowans Wylie
Population Education Programme
Office of Environment & Conservation
Central Government Office, P.O. Wardstrip, Waigani

Philippines

Mr. Edgar Callanta
Deputy Executive Director
Commission on Population, P.O. Box 1841
Makati, Rizal, Manila

Mrs. Remedios M. Cayari
Chief, Population Education Programme
Ministry of Education and Culture
Arroceros Street, Manila

Republic of Korea

Dr. Kuk Bom Shin
Director, Educational Foundations, Research Department
Korean Educational Development Institute (KEDI)
20-1 Umyeon-Dong, Gaugnangu, Seoul

Mr. Duck Soon Im
Senior Researcher of Education
Office of Supervision & Curriculum Development
Ministry of Education, Seoul

Sri Lanka

Mr. Sterling Perera
Director of Education, Curriculum Development Centre
Ministry of Education, 255 Bauddhaloka Mawatha
Colombo 7

Dr. Shirley Clement Weerakody
Medical Officer (Training), Family Health Bureau
131 Desaran, Colombo 10

Thailand

Mr. Swat Chongkol
Director, Curriculum Development Centre
Department of Educational Techniques
Ministry of Education
921 Sukhumvit Road, Bangkok

Mr. Sunthorn Sunanchai
Director, Adult Education Division
Ministry of Education, Bangkok 3

Observers

Mrs. Avabai Wadia
IPPF Representative

Mr. Peter Schumann
ILO, New Delhi

Mr. N.R. Yadav
Deputy Assistant Commissioner
Ministry of Health and Family Welfare
New Delhi

Secretariat

Dr. Leonardo de la Cruz
Regional Adviser on Population Education
Unesco Regional Office for Education in Asia and Oceania
Bangkok

Dr. R.C. Sharma
Specialist in Curriculum Development in Population Education
Unesco Regional Office for Education in Asia and Oceania
Bangkok

Dr. S.K. Mitra
Director, National Council of Educational Research and Training
New Delhi

ANNEX V

GROUPS FOR IDENTIFYING ALTERNATIVE
INNOVATIVE STRUCTURES AND APPROACHES

Group 1: Programme development and implementation of population education programme including evaluation.

1. Mr. Nageswor Prasad Singh
   Kathmandu, Nepal

2. Dr. S.C. Weerakody
   Colombo, Sri Lanka

3. Mr. Anisur Rahman
   Dacca, Bangladesh

4. Mr. Ghulam Ali Arya
   Kabul, Afghanistan

5. Mr. Sans S. Hutabarat
   Chairman, Jakarta Selatan, Indonesia

6. Mrs. Sarla Mukhi
   Rapporteur, Bombay, India

Group 2: Awareness and orientation of key personnel and training of different teachers and other personnel.

1. Mr. Anil Bordia
   New Delhi, India

2. Prof. B.S. Parakh
   New Delhi, India

3. Mr. Abdul Mannan
   Dacca, Bangladesh

4. Mr. Sunthorn Sunanchai
   Bangkok, Thailand

5. Mr. Peter Schumann
   ILO, New Delhi, India

6. Mr. Sterling Perera
   Chairman, Colombo, Sri Lanka

7. Mr. Krishna Bahadur
   SOB Rapporteur, Kathmandu, Nepal

Group 3: Curriculum development and textbook and other materials development.

1. Miss F. bt. Abu Bakar
   Kuala Lumpur, Malaysia

2. Mr. Swat Chongkol
   Bangkok, Thailand

3. Mr. Mohammed Qayem
   Kabul, Afghanistan

4. Mrs. Remedios Cayari
   Manila, Philippines

5. Mr. Duck Soon Im
   Seoul, Republic of Korea

6. Mr. Mohammed Yasin
   Kabul, Afghanistan

7. Dr. P.L. Pareek
   Chairman
   Ajmer, India

8. Mrs. Ruth Gowans Wylie
   Rapporteur
   Waigani, Papua New Guinea

Group 4: Co-ordination with different agencies/departments and administrative organizations and as a separate administrative organization or part of the existing structure of educational administration.

1. Mr. Edgar Callanta
   Manila, Philippines

2. Mr. Mohd. Yusof bin Bakar
   Kuala Lumpur, Malaysia

3. Mr. N.R. Yadav
   New Delhi, India

4. Dr. Kuk Bom Shin
   Seoul, Republic of Korea

5. Mr. Sutardi Wirjohasmoro
   Chairman, Jakarta, Indonesia

6. Mr. I.S. Walia
   Rapporteur, Suva, Fiji

ANNEX VI

REMARKS AND SPEECHES

1. Welcome Address by Prof. Shib K. Mitra
2. Remarks by Dr. Leonardo de la Cruz
3. Introduction to the Workshop by Dr. R.C. Sharma
4. Inaugural Address by Dr. J.D. Sethi
5. Votes of Thanks by Dr. T.N. Dhar

Welcome Address at the Inaugural Function

by Prof. Shib K. Mitra, Director, NCERT, New Delhi

Dr. Sethi, Dr. de la Cruz, Dr. Sharma and participants

I have great pleasure in extending to you a cordial welcome to this inaugural function. To the participants from the various Asian countries, I would like to extend personally and on behalf of the National Council of Educational Research and Training and on behalf of the National Development Group of the APEID, a cordial welcome to India. Delhi, just now, is having very fine weather and I hope that you will enjoy your stay here.

Dr. Sethi, as a member of the Planning Commission, is a very busy person and we are very pleased that a person who has deep interest in the subject of population education, has agreed to inaugurate this Session and I would like to extend personally as well as on behalf of all of you, a cordial welcome to him. To Dr. de la Cruz and Dr. Sharma from Unesco Office in Bangkok which has sponsored this programme, I will also like to extend a cordial welcome. This is not the first time that they are visiting us. They are well known figures and friends. I am pleased, particularly to see that they are here today.

This is a programme which is important for us in the Asian region as also in Oceania. I find that we have participants for the first time from Fiji, and Papua New Guinea. I extend special welcome to them to this particular meeting on population problem which, it is needless to mention, is one of the most significant issues in all development efforts in this part of the world. We have started a little work in this country, in the NCERT and some of the participants to this Workshop who are representing India, will place before you later on during the discussion what kind of development has taken place in matters of curriculum and instructional strategies, development of instructional materials, programmes of evaluation, both formal and non-formal.

I will not like to take more of your time in describing the attempts that have been made except to emphasize this fact that we have considered it important and we have been struggling for the last 10 years to see that in the school stage there is some knowledge conveyed to the students about the relevance of population, about thinking of population problems, concerning population growth and development and the strategies that might be evolved in order to make some kind of control possible in the rate of growth of population.

We were asked by the Indian National Commission for Co-operation with Unesco in the Ministry of Education to organize this Conference and we have found it possible to organize this because of the help and co-operation that we have received from this and various agencies, including the Ministry of Health and Family Welfare. To all of them and to our distinguished guests I extend a cordial welcome. I will now request Dr. de la Cruz, Regional Adviser on Population Education, Unesco, to speak on this subject.

Remarks at the Inaugural Function

by Dr. Leonardo de la Cruz, Unesco, Bangkok

On behalf of the Unesco Regional Office for Education in Asia and Oceania, our Director, Mr. Raja Roy Singh, my colleague, Dr. Ramesh C. Sharma and my own personal behalf, I wish to welcome you to this most important Workshop. We are grateful to the Government of the Democratic Republic of Afghanistan, Bangladesh, Fiji, India, Indonesia, Malaysia, Nepal, Papua New Guinea, Philippines, Republic of Korea, Sri Lanka and Thailand for honouring our invitation to this Regional Workshop. Likewise, we are grateful to the Government of India, in particular to NCERT, for agreeing to host this Workshop.

Educational innovations come and go which make many of them nothing but educational fad. But one of the educational innovations in the 1970s is quite different. I am referring to *population education*. Though its value is not yet given the recognition that it truly deserves, its acceptance is accelerating through the years. For indeed it is a real educational innovation designed to help hasten development efforts. Population education is the educational sector's contribution to the multisectoral co-operative efforts in contending with the ever-increasing population pressures that are impinging on the development of nations.

By and large, the countries represented in this Workshop are developing. Development is our obsession in our quest to ensure quality of life for our people. Population is a crucial factor for development. If properly balanced with the earth's resources and technological know-how it hastens progress. Hence, the parliamentarians from 62 nations who recently met in Colombo, Sri Lanka, reiterated the necessity of linking population programmes with development plans. Indeed in many developing countries in Asia, unplanned population growth has already badly tilted the earth. The earth's carrying capacity on our part of the world has probably already been reached, and perhaps in some countries it has in fact been overloaded. In 1975 about 2,200 million out of the total world population of 4,032 million live in Asia, compared to 405 million in Africa, 323 million in Latin America, 236 million in North America, and 518 million in Europe.

Yet, while in Europe seven countries such as Austria, Belgium, East Germany, Luxemburg, Sweden, United Kingdom and West Germany have already stabilized their population, and at least half dozen more are approaching stabilization, in Asia none except Japan and the tiny island of Singapore are approaching stabilization, that is, zero population growth. Of course, when the population of a country like West Germany decreases by 0.2 per cent or a decrease of 122,800 yearly, then there is also a cause for concern. In this case population education would have a different objective, as drastic population decrease may also ultimately adversely affect development.

Most countries in Asia and Oceania are too far away from population stabilization. The annual growth rate in Asia and Oceania is estimated at 1.97, which means that in about 35 years the present population of the region would double. The trouble is population growth could cut like a sharp, double-edged sword in that it increases demand as it reduces supplies. As population increases, severe stress is imposed on the nation's agricultural land, forests, fisheries, grassland and energy sources. In fact, the oil pinch is already badly felt in non-oil-producing countries. Hence, you see how prices have sky-rocketed mainly as a result of increases in oil prices; but sad to say wages have always lagged at least a couple of years behind. Consequently, the richer 19 per cent of the earth's population controls 64.5 per cent of the world's gross national product.

If we in education can be said to have done our part, we must ensure the success of population education. Of course, population education is a slower, though perhaps more sure process of paving the way towards population stabilization. Right now population education is still suffering from *identity crisis*. To many people population education is family planning. That should have been all right except that family planning is often viewed as nothing but crash programmes in preventing birth and controlling population growth. In extreme cases, family planning policies are implemented indoctrinatively, if not coercively. But we in Asia and Oceania hate to be coerced. It is true that we may not violently oppose unfair impositions but at the same time, we tend not to act as unreasonably told. There is an adage, "you can lead a horse to water but you cannot make him drink". This has been proven to be so in many countries. It is perhaps for this reason that in many countries the narrow concept of family planning that is propaganda-oriented and indoctrinative is fortunately giving way to dynamic educational programmes that take into account the people's socio-cultural values, such as the value attached to children, religion and other beliefs, preference for sons, children as economic assets, children as insurance for old age, and the politics of numbers of plural societies.

More and more it is being realized by more and more people that one cannot appreciate the problems brought about by unplanned population growth if not viewed in the context of components of quality of life, i.e., health, housing, clothing, environment, food and nutrition, education, employment, social services, recreation, etc. When this is done then, we transcend the narrow concept of family planning and are then involved in population education.

Population education is value-laden, as no educational programme is perhaps value-free. But if it is an educational programme then it must necessarily utilize value-fair teaching strategy. A Unesco publication aptly describes value-fair teaching as follows:

> The basic assumption of a value-fair teaching situation is that there are no population-related decisions or actions which are by nature 'right' or 'wrong'. In

this situation, it is the task of the educator to provide content (both factual information and information relating to different value positions) which will enable learners to evaluate the range of options for a given issue. This does not mean that the teaching/learning situation, or the educational process or programme, will be bias-free but rather that the biases and related attitudes and values will be identified and open to evaluation.

Such value-fair exercise is a means to an end, not an end in itself. The end-in-view is to change people's attitude and values leading to rational and responsible behaviour related to marriage and child-bearing.

Population education can do a lot but only if it is done innovatively. In fact, it has been shown in two country studies in the Philippines and Republic of Korea that incidental to the main goals of population education, i.e., to afford young and adults knowledge and understanding about population dynamics, the causes and consequences of population growth and the interrelationship of population change and development-population education has proven to be a renovating force in education. For indeed population education is an innovation. With this Workshop we can make it much more so.

Again welcome to this Regional Workshop on Innovative Structures and Approaches to Population Education.

Introduction to the Workshop

by Dr. R.C. Sharma, Unesco, Bangkok

Honourable Chief Guest, Dr. Sethi, Dr. Mitra, Dr. Dhar, distinguished participants, ladies and gentlemen

Dr. Mitra and Dr. de la Cruz have already spoken on the need as well as on the nature of population education. As you all know, the main concern of all the developing countries is to improve levels of living and enrich the quality of life of the people. There are at least four major problems which are of global concern. I would put them as four Ps - Poverty, Population, Pollution and Peace. The problems of resources depletion as well as deterioration of ecological systems are also equally important problems. All these problems are interrelated and should be tackled together. Population is one of the main factors affecting the developmental efforts of the countries. It has perhaps become one of the major limiting factors for development in many of the developing countries. The developing countries with higher rate of population growth need to bring down the growth rate of population. However, lowering the rate of population growth does not necessarily ensure development. There are instances in Asia where countries with lower rate of population growth have not been able to improve the standard of living of the people. On the other hand, there are also instances of countries in which the rate of economic growth has been continuously increasing in spite of the higher rate of population growth. There are other factors for development which should also be taken care of in addition to the population factor.

Because of the awareness about interrelationship between population and development several countries in Asia (Bangladesh, Indonesia, Malaysia, Philippines, Republic of Korea, Sri Lanka and Thailand) initiated national programmes in population education in the formal education system with the financial and technical support of UNFPA and Unesco. These programmes were started during the early 1970s. All these countries have more or less completed the first phase of the national programme of population education and have developed curricular materials, trained different categories of personnel and have integrated population education concept in different subject areas. They are now in the second phase of institutionalization. Some countries in Asia and Oceania are in the process of developing national programmes on population education. Even some island countries in the South Pacific region have also recognized the need for including population education in the formal as well as non-formal education systems.

During the last seven to eight years the countries with national population education programmes have used the variety of innovative strategies and approaches to programme development, curriculum and materials development, integration of population education in the existing education system and other developmental programmes, training of personnel, research and evaluation as well as in the operational aspect of the programme.

This Workshop is the first of its kind in Asia in which the main focus is on identifying the innovative and effective approaches to population education. The main objectives of the Workshop are:

1. to enable countries with population education programmes to share their experiences;

2. to enable countries with emerging population education programmes to formulate alternative and innovative structures and approaches for effective implementation of various aspects of population education programmes. Hopefully the outcomes of this Workshop will be useful not only to the countries with emerging population education programmes but also to the countries with on-going population education programmes.

Twenty-five delegates from 12 countries (Democratic Republic of Afghanistan, Bangladesh, Fiji, India, Indonesia, Malaysia, Nepal, Papua New Guinea, Philippines, Republic of Korea, Sri Lanka and Thailand) are participating in this Workshop. In addition, there are three observers representing IPPF, ILO and Ministry of Health and Family Welfare, Government of India. It is my great pleasure to introduce to you the participants and the observers of this Workshop.

Inaugural Address

by Dr. J.D. Sethi, Member Planning Commission

It is not necessary for me to dwell on the importance of population education before this august gathering. All of you have been grappling with this subject in your countries and have rich experience of it. I took interest in the subject only very recently as a part of my job as a planner. I have found to my greatest dismay that there is an appalling gap between image and reality with regard to population education. Indeed, the whole thing is a kind of fiction. I do not know about the experience of the other countries but in India population education is being discussed in the context of a highly irrelevant system of education and as divorced from the basic realities of a crucial situation of poverty and population reinforcing one another. Population education is a highly complex subject and it cannot be subjected to the run-of-the-mill treatment which we seem to be imparting to it. I strongly feel that population education without massive awareness among the people is not likely to succeed on the scale on which we want it. And this massive awareness is unlikely to come without a radical transformation of our social and economic structure and without a powerful political intervention. However, since we cannot await that radical tranformation, we have to discuss the subject and formulate policies within the context of marginal modifications that can be introduced in our educational system. Therefore I can do no better than do an exercise in marginalia in which everybody else is engaged eventhough I am quite unhappy about it.

Nevertheless, being an optimist and a believer in the Gandhian view that small changes should not be spurned when large changes are not occurring, I hope this Workshop will create amongst educationists, as well as administrators, intellectuals and political leaders, greater awareness of the potential of population education as an investment in man. It will also help us in identifying the strengths and weaknesses in our population education programmes and strategies, in learning from one another's experience and in streamlining and expanding the systems that are currently in vogue in the region.

Numerous socio-economic and cultural variations mark the scenario in our part of the world. There are variations between country and country and between one region and another within the same country. However, there are many things which we have in common and which do make it possible for us to look at our problems and programmes, hopes and aspirations, successes and failures as members of one large family.

A glance at the world population situation and a peep into the near future is both instructive and alarming. As per United Nations calculations the world population, which was around four billion in the year 1975, is likely to be close to six and a quarter billion by the turn of the century. The world population has been increasing at the rate of 1.89 per cent per annum and would double in 37 years. However, if we look at the break-up of these world figures in terms of industrially more developed and

less developed regions, the population of the world's less developed regions today accounts for 70 per cent. But by 2000 A.D. its share would increase to 77 per cent. While the population in industrially more advanced countries has been rising at 0.86 per cent per annum the rate for the less developed countries is 2.31. Whereas the developed countries would take as many as 80 years to double their population, the developing countries may require only 37 years.

Population below 15 years of age is 36 per cent for the world as as whole; but this figure is just 25 per cent for developed countries as against 40 per cent for less developed countries. While the global birth rate is 31 per thousand, in developed countries it is only 17, as compared to 37 in under-developed countries. The same is true about the death rates, 12.8 per thousand for the world as a whole, 9.2 for the developed and 14.3 for the under-developed world. The gap in life expectancy in these two different worlds is also remarkable as it is 71 in the affluent world while the figure for the disadvantaged world is just 52.

The present population explosion is such that it cannot be simply wished away, howsoever one may like to do it. May I further draw your attention to even more distressing and alarming fact, namely, the unequitable distribution of resources, capital formation, technical know-how and the consumption patterns in the two worlds. This much about the world situation and their obvious implications for all of us who belong to the 'third world'. As the situation for most of the third world countries is somewhat similar, let me talk about the population situation, policies and programmes in our country.

As in other fields, India had been the first to recognize the need of population control and family planning. This does not mean that it is also the first in its performance. Indeed, India's performance had been far below expectations. We have to ask ourselves the question as to what goes wrong when our planning documents very clearly lay down objectives about family planning. If I am permitted to quote a few sentences from the three Plans, it would be clear that the planners have been conscious about the need for population control in this country.

The document of the Second Five-Year Plan notes that 'over a period, the outcome of development effort could be noticeably different if population trends are altered in the right direction'.

The Third Five-Year Plan emphatically declares: 'objective of stabilizing the growth of population over a reasonable period must be at the very centre of planned development'. If in the 1950s, the emphasis was on 'a clinical approach', in the 1960s, there was a clear-cut shift in favour of 'extension education' approach.

The Fourth Plan recognized the crucial role of population education and stressed that "there be purposive campaign in educating the young and old alike on the importance of 'small family norm'. The importance of introducing subjects of 'population growth and control' in the curricula for the entire school stage cannot be over-emphasized."

While realizing the importance of population education as a preventive measure and as a long-term strategy there was an equally important shift in the strategy of implementing family planning programme itself. From the earlier approach of tackling family planning programme somewhat in isolation of socio-economic developmental effort it was now considered that family planning programme was a 'kingpin' of all development programmes leading ultimately to improving the 'quality of life'. This resulted in integrating health, family planning, maternal and child health.

In the Fifth Five-Year Plan, family planning programme received the highest priority. On the one hand greater integration of programme with general health, nutrition and maternity and child health schemes was being affected, on the other hand it had become a vital part of the total socio-economic change which India has been experiencing.

Let me just add that while we were actually able to spend only 1.45 million rupees on this National Family Planning Programme during the First Five-Year Plan the same had risen to as much as 2,765 million rupees during the Fourth Five-Year Plan. As a result, the percentage of couples protected by all family planning methods was 0.2 in the Second Five-Year Plan (1969-1974) and our target was to realize 35.9 per cent during the Fifth Plan.

Yet another landmark in the evolution of our population policy and programmes was to change from 'Family Planning' to the much broader concept of 'Family Welfare'.

This brief review of the population situation, policy and programme I may like to complete by drawing your attention to the Interim Report of the Working Group on Population Policy appointed by the Government of India, Planning Commission. This Interim Report was made available to us in March this year. The Report states:

> "Population policy should reflect the concern for the individual's as well as the community's dignity, needs, aspiration, development and well being, and emphasize not only demographic goals in terms of fertility rates, mortality rates and distribution of population but also employment and quality of life.
>
> The success of the programme of population control will depend upon:
>
> a) the involvement of people and the various social, economic and political institutions specially at the local level in the organization of the programme; and
>
> b) on the successful implementation of the various programmes of social and

economic changes, specially rural health, adult education, women's education, rural water supply, nutrition programme, rural development programme, etc.

We strongly recommend that the nation commits itself to achieving the long-term goal of net reproduction rate (NRR) of one by 1986 on an average and by the year 2001 for all states."

The transition from the present level of NRR, which is estimated to be around 1.67, to 1.00 by 2001 implies that the present family size of 4.2 children will have to be reduced to 2.3 children per couple. This further implies a reduction in death rate from 14 to about 9, and birth rate from 33 to 21. By 2001, the infant mortality rate would also have to come down to 60 from the current figure of 120 per thousand live births.

If we succeed in this task the population of the country would be around 900 million by the turn of the century. It would take another 50 years before population size stabilizes because of the age structure of our population. According to present estimates, the nation's population would stabilize with a small positive growth around 1200 million by the year 2050 A.D. We can with small effort and even current level of development and better distribution succeed at least in realizing this target. But the implications of this figure are none too happy at least by present day standards. Therefore, we cannot go on pursuing the policies we have adopted so far. We have to accelerate the programme by changing its thrust, quality and direction. We must aim at stabilizing the population at 900 million. The achievement of this objective is a herculian task, but if the people are directly involved in this programme and given adequate education and succour through development, it is not impossible to achieve the objective. Population education has to be so conceived as to give a place of pride to ideas of self help, self reliance and productivity education or productivity consciousness, as population education is rightly expected to emphasize quality of the labour force as against their mere numerical strength.

Despite all the attempts to highlight the problem of population control and generous allocation of resources now being made, I have no hesitation in admitting that population education remains one of the most serious gaps in our population policy. We have not given adequate instruction to married couples about the need for small family norms and even if instruction is available, their own socio-economic conditions may be such as to make this instruction and information useless. Therefore, there is a certain urgency about introducing population education both through our development programmes as well as in our educational institutions so that a certain psychological preparedness for a healthier view of family is built into both the learning and the earning processes of life. Sometimes, it is too late to educate a person because he might have acquired prejudices and values in early life against family planning. However, at no point should we belittle the importance of imparting to

adult population education about family planning and population control because this class is now going to determine the pattern of population for the next 20 years. Nevertheless, we have to take a longer view of our population perspective. And since 42 per cent of our population is in the age below 15, we have to educate these children in a manner in which they can comprehend the problem.

The Working Group on Population made the following recommendations in this regard. "We also feel that health and population education at appropriate levels in the schools would help the population control programme significantly specially if provided to girls at secondary and higher secondary levels. Unfortunately, high dropout of girls from the schools, especially in the less developed states, makes for limited utility of this measure. Even so we support the general idea and we suggest that necessary assistance be given to the states undertaking such educational programmes."

In a developing country, the best instrument for introducing any educative programme is through those developmental processes which have a direct impact on the life of the common man. For a long time, the economists and the demographers of the Third World countries have been engaged in a futile debate about relationship between population and economic development. Those of radical persuasion believed that to talk of population control amounted to diverting the attention from the real problems of economic development and alleviation of poverty. Economic development is the best contraceptive but a rapid population growth may make such a large dent on resources that the development processes themselves may be eroded. Fortunately, now there is a general consensus that relationship between economic development and population control has to be explicitly recognized and neither of them should be considered independent of the other, particularly in countries which have a large population base. Therefore, if we need education for economic development, we certainly need education for population control. Logically, education for population control should form a part of economic development, but because of different problems and social situations in different areas, the connection between the two will have to be determined by local considerations.

I believe that population education programmes in Indonesia, Malaysia, Philippines and Sri Lanka have attained greater success than what we have been able to achieve in India. Here the National Council of Educational Research and Training has been struggling for a long time to induce the State Governments to integrate population education with other relevant subjects in the school system. The Council has been able to introduce population education in schools which are directly under the control of the Central Schools Organization or which are affiliated to it. But the number of these schools is very small and most, if not all, of them are located in urban areas. Some of the States have kept pace with the National Council of Educational Research and Training and some of them have perhaps even gone a step ahead of them. But the fact remains that in most of the States population education has not received the importance it merits in the school system. I do hope that the new

Population Education Project which the Ministry of Education has developed and which they propose to push forward with the aid of international agencies will accelerate the process of spreading population education in schools all over the country. I am told that under the Project the Ministry hopes to expose 93 million school students and 45 million out-of-school children to population education in the next four years. This is a big task for which we need a massive effort and lot of imagination and, I may say, a lot more of self-education.

I understand that this international meeting of population education specialists from various member countries of Unesco in Asia and Oceania would compare notes, exchange ideas and pool their experiences to clarify their ideas and, if need be, modify and reinforce implementation strategies adopted by individual Member States in the light of their own needs and imperatives of the situations, and obviously within the broad framework of their national goals.

Just as population policy, family planning and welfare programme and national strategies have been continually undergoing change in the light of individual and collective experiences, it is but natural that the concept of population education as such has also been growing and getting crystallized.

It must be appreciated that the emerging population education has to be in response to a felt need arising out of fast growing populations, the changing characteristics of population structures, age and sex compositions and dependency ratios. This further calls for corresponding changes in the relationships of human populations and their sustaining environment and natural resource base that meets basic needs of man, namely, food, clothing, shelter not excluding fresh air and potable water. Thus population education is a functional concept. Professor J.E. Jayasuriya formerly Regional Adviser on Population Education, Unesco Office, Bangkok, in his latest book on *Curriculum Innovation through Population Education*, has traced the growth of the concept of population education. He has very lucidly pointed out how, to begin with, population education was visualized in terms of preparation for family planning. As rapid population growth and urbanization were looming large on the horizon, population education was thought to be a tool to mitigate these twin evils.

Professor Jayasuriya has divided population education into five different components:

1. the collection and analysis of population data;
2. population growth and human development;
3. problem of urbanization;
4. psycho-social aspects of human sexuality and the reproductive process;
5. population planning.

This is a very comprehensive set and if it is possible to implement it, it would have far-reaching implications. I have some doubts about some of these components. I think components 1, 4 and 5 cannot be formed as part of population education at the early school level. The collection and analysis of population data is a highly technical subject and only the main results about births, deaths, rate of growth of population, fertility, mortality, etc., can be taught to the students. Similarly, I am not sure whether our social system will permit a meaningful education at the school level about human sexuality in population planning. Components 2 and 3 are most crucial and attention has to be paid to them. Even with regard to 3, I would like to add that in most of the developing countries, population education is not to be confined to problems of urbanization but to a more serious problem that has come up before us, namely, the perpetuation of rural-urban rigidity and the distorted migration that it is producing. Of course, the most important component of any population education should be human development relating to such variables as land and natural resources, agriculture, food, housing, employment, development strategies and health services.

There is serious dilemma here. While recognizing that the needed population education is not to be concerned with family planning education or sex education, except where age and maturity would make these appropriate, the children may be exposed to mass media such as radio programmes, billboards, motion pictures, etc., all of which have been designed to elicit response from adults - the present parent education. We cannot make similar appeals to children and youth. But what we can do is to suggest to the world's young people who would become the parents of next generation that they should be made aware of the magnitude of the population problem and educated to recognize that a small family is not only proper but highly desirable.

I hope, while population education would help children analyse and understand population situations at bringing about deliberate changes in population structures, compositions and trends they would also be helped to adjust with very fast or abrupt changes that have been taking place in family size and family life patterns. Family life education including sex education in this context should form part of population education. Significant concepts from environment education such as helping to establish rapport and harmony with nature and not disturb its equilibrium, should also be made an integral part of population education.

The structure of population education has been very aptly summed up by John Edlefsen:

> "Students in the elementary classes, starting as early as 8 or 9 years of age, can be made to understand the pattern of population growth in their own countries, with particular attention given to the birth and death rates and the rates of population increase. Then as they progress through the grades, they can be given

comparative information for neighbouring countries and a general understanding of the world trends. Such factual information could be introduced readily through such existing subjects as geography, civics and history. Arithmetic problems could easily utilize production data. This exposure to population dynamics should also include data regarding food production, preservation and distribution. A word of caution: students should not be overwhelmed in any one year or in any one subject with these population awareness units. On the contrary, this new information should be introduced little by little so as to keep the students' appetite keen for more knowledge regarding population. Thus, by the time each boy and girl is ready to graduate from high school, each will have an appreciation of his or her roles and responsibilities as consumers and as potential producers in a complex society."

The existence of man and the quality of life he aspires for and is able to enjoy will also depend upon the relationship he establishes with his 'natural base'. Knowing fully well that not all resources are infinite, the new generation must know how to use its resources more intelligently and wisely, avoid in every possible way their wastage and develop technologies based on recycling of the natural resources, and a variety of waste materials.

At the cost of being stamped a man out of place in this modern world, may I also submit to this august body to think seriously about the basic motivation or foundation of modern economy, namely, 'multiplication of wants' and 'consumerism'? I hope we should be able to identify and evolve quality of life pattern not merely in materialistic terms of multiplying demands and augmenting supplies.

Population control and education are important in the context of the international differences in the consumption patterns. Although the rate of growth in the developing countries over the last two decades has been higher than the combined growth of the developed world, the gap between their consumption has been widening. Today, 6 per cent of the world's most affluent people are able to maintain level of living which consumes 40 per cent of the world's resources. At the present American standard of living, this planet can afford not more than thousand million people. Therefore, population education and education about consumption are as important as any other variable. In poor countries the children of the affluent sections have to be taught that any attempt to imitate the consumerism of the developed world would be highly selfish activity and in the long run would not be even in their own interests. When half of the population lives below the poverty line, it would be neither conducive for population control nor for economic development for a small minority to maintain a standard of living which would create a climate of envy and enmity. The responsibility of the affluent sections to maintain a certain level of austerity is necessary both for development and for influencing the attitudes for their less fortunate brothers.

To summarize, it seems the following issues deserve consideration of the Workshop. First, the way the population education is to be injected into school curricula has been a subject of controversy. While according to some there is a strong case for introducing population education as a separate subject, others are advocating integration of population education in various school subjects. This analytical versus synthetic approach need not be taken as an 'either-or proposition' but can really be complementary to one another. Perhaps, a via-media of identifying only a couple of most promising school subjects like social studies, general science and biology where large and identifiable chunks of population education can be integrated, needs to be explored.

Second, should population education be given a status of a separate subject in the curricula or made part of other subjects to see what aspects of the population can be meaningfully put across within the context of that subject? It has been suggested that population education should be made part of economics, history and other social science subjects. My view is somewhat different. I think that population education should be a part of life sciences such as biology, ecology, nutrition, origin and continuity of life and finally, the life processes and organization of life. Not only would this approach be less embarrassing both for the teachers and the students to accept population education, it will also be more meaningful as the relationship between population education and life science is integral. This does not preclude the other approach: demographic profile of our population can be given as a first exercise in any way which is found suitable, either separately or as a part of some other subjects.

Third, what methods of population education are most suitable? It has been argued that if population education is to be worthy of its nomenclature what should worry us most is to identify and adopt methods and techniques that would succeed, of course, in a very subtle manner, in changing the perspective, points of view, values and attitudes of children in respect of significant changes in population characteristics, their various implications, man's relationship with environment and natural resources, and the right indicators of quality of life.

Fourth, with these high expectation it is but natural that a variety of suitable and effective instructional materials will have to be developed very carefully. There is obviously ample scope for experimentation and imaginative innovations. However, more crucial in this regard would be the preparation and orientation of teachers, teacher educators and, last but not least, school administrators right from the headmaster onwards. What is important here is the large numbers that we have to cover in a limited time and with even more limited financial resources at our disposal. This should call for development of suitable materials addressed to these varied target groups and training of resource persons at district and block levels if we want an impact of this programme at the grass-roots level, particularly in rural or *mofussil* areas. I do not want to minimize the role of mass media and distance learning techniques,

particularly in countries with large areas, huge population and with meagre financial resources.

Population education in schools can never succeed without its getting a proper response from environment in home and in the community. To get this response, other programmes which create awareness among people have to be dovetailed with population education. How population education and awareness can be married with development effort is one of the most important but difficult questions to be tackled. Without tackling it, no programmes can really succeed.

Finally, no educational strategy will be complete without planning for adequate and effective evaluation, research and experimentation. It should be possible to pool the limited resources of the member countries in drawing up comprehensive plan, the results of which can be shared by all the member countries. My country, I am sure, would be only too glad to share its resources with other member countries.

The list of subjects which the Workshop will take up is fairly comprehensive. I can well appreciate the anxiety of the organizers to confine their exercise to the organized school sector only. At the same time, I would submit that the Workshop should not forget the large number of dropouts from schools. It may be too much to expect from this kind of a workshop to suggest ways and means whereby the rate of dropouts can decline. It may, however, be possible for it to develop strategies which may enable us to extend population education programmes to dropouts also. Secondly, I am sure that participants in this Workshop are conscious of the fact that the majority of the schools in the region are located in rural areas. Population education to be imparted through these schools must have a bearing on the rural situation. If its approach is altogether urban, it may fail to achieve its purpose. Thirdly, I suggest that the role of mass media in education, particularly population education, should be kept in mind while developing innovative strategies. Last, though not least, you should not forget that in any education innovation teacher occupies a pivotal role. Population education is a new but highly complex field of analysis. The education of the teacher and his orientation to the subject should receive the highest priority in this Workshop.